ADVICE TO A MOTHER

ON THE

MANAGEMENT OF HER CHILDREN

MR. PYE CHAVASSE'S OTHER WORK,

UNIFORM WITH THIS BOOK.

THE FOURTEENTH EDITION OF

ADVICE TO A WIFE

ON THE

MANAGEMENT OF HER OWN HEALTH,

WITH AN INTRODUCTORY CHAPTER

ESPECIALLY ADDRESSED TO A YOUNG WIFE;

TOGETHER WITH A CHAPTER ON THE VALUE OF CHLOROFORM IN HARD AND IN TEDIOUS LABORS.

Edited by Dr. Fancourt Barnes.

CHAVASSE'S

ADVICE TO A MOTHER

ON THE

MANAGEMENT OF HER CHILDREN

AND ON THE

TREATMENT ON THE MOMENT

OF SOME OF THEIR MORE PRESSING ILLNESSES AND ACCIDENTS

BY

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ADAPTED
FOR AMERICAN READERS
BY AN
AMERICAN PHYSICIAN

"Lo, children and the fruit of the womb are an heritage and gift that cometh of the Lord."

Fifteenth Edition

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PREFACE TO THE FIFTEENTH EDITION.

ELEVEN years have elapsed since the publication of the fourteenth edition of "Advice to a Mother." The publishers, feeling that a new edition was required, requested me, the author being no longer among us, to undertake the task of its preparation.

Of recent years the study of Pediatrics, or the art of healing children, has made enormous strides, so much so that, however unwilling I might be to make radical alterations in a work that made the reputation of its author, yet there was no help for it, if the book was to maintain its high standing and consequent popularity.

I have therefore added about one hundred pages of fresh matter, comprising sixty-three additional Conversations, to the original work, and I have also found it necessary to rewrite about two-thirds of the book, wholly or in part, together with certain other minor additions and structural alterations, to bring it up to modern requirements.

In Part I. the important subject of infant feeding has been dealt with at great length, and much additional information has been imparted on infantile and childish disorders. Much of the original matter has been rewritten.

Many alterations and considerable additions have been made in the Conversations relating to childhood, Part II.

Information regarding the requirements of the Public

Health Acts, the methods of disinfection, and the hygiene of the nursery have been added, as also much useful information on the nursing of infectious and other disorders.

The methods of the preparation of various local applications required in the sick-chamber, which are likely to be ordered by the doctor, have not been forgotten.

The Conversations dealing with diseases, whether of a general or a special character, and accidents, have been for the most part rewritten and much new matter incorporated.

Some additions have been made to Part III., and some of the Conversations relating to diseases have been rewritten.

I have removed the prescriptions which were formerly placed in the body of the work, and have selected a few simple prescriptions in an Appendix, for ready reference should an emergency arise.

The chief reason why prescriptions have been banished from the body of the work is that no mother shall be tempted under the authority of this book, which is after all, but an elementary and a popular guide, to undertake the grave responsibility of the treatment of a serious disease without calling in medical assistance.

A mother must ever remember that years of arduous study and special training have enabled the doctor to detect the nature of an illness, and that the primary object of seeking skilled assistance is to discover the complaint, which possibly may be only a simple one ; but, on the other hand, it may be very grave, and moments are then precious.

When the nature of the complaint has been accurately determined, the appropriate remedy will be the more readily and successfully applied.

A prescription is of but little value if the correct view of the nature of an illness is not taken and its indiscriminate use is only likely to lull a mother into

false security, a condition of affairs which it is not the aim and object of this book to bring about.

Maternal instinct and maternal love, even when fortified by a volume of this nature, can never successfully usurp the place of the skilled physician ; but should an emergency arise, then it will be very right and proper for a mother to make good use of the knowledge contained within these pages, and act promptly, for prompt action may make all the difference between a successful and an unsuccessful issue.

When making these various alterations and additions I have erased only that which was absolutely necessary, and I have, as far as possible followed the style of the original author, so that the character of the work, which is evidently very popular with many thousands of British and Colonial mothers, shall not suffer.

"Advice to a Mother" has passed through fourteen editions and 230,000 copies have been sold.

It has also been translated into various European, and even Asiatic, languages. It has also been extensively republished in America. It is largely read in Australia and wherever the English language is spoken.

I can only hope that the new work may be as useful to mothers and as beneficial to their children in the present generation, as preceding editions were to former generations during the lifetime of Mr. Pye Chavasse.

GEORGE CARPENTER, M. D. Lond.

12 Welbeck Street,
Cavendish Square, London, W.
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CONTENTS.

PART I.—INFANCY.

	PAGE
Preliminary Conversation	1
Ablution	5
Management of the Navel	12
Navel Rupture—Groin Rupture	14
Clothing	18
Diet	23
Vaccination and Re-vaccination	64
Dentition	70
Exercise	83
Sleep	85
The Bladder and the Bowels of an Infant	90
Ailments, Disease, Etc	92
Concluding Remarks on Infancy	141

PART II.—CHILDHOOD.

Ablution	142
Clothing	144
Diet	150
The Nursery	163
Exercise	191
Amusements	195
Education	200

PAGE
Sleep 204
Second Dentition 209
On Disease, Etc 210
Warm Baths 333
Warm External Applications 334
Accidents 337

PART III.—BOYHOOD AND GIRLHOOD.

Ablution, Etc 353
Management of the Hair 360
Clothing 361
Diet 364
Air and Exercise 367
Amusements 372
Education 376
Household Work for Girls 380
Choice of Profession or Trade 380
Sleep 382
On the Teeth and the Gums 386
Prevention of Disease, Etc 388
Concluding Remarks 422

APPENDIX.

Prescriptions 423

INDEX 427

If this book is to be of use to mothers and to the rising generation,—as I humbly hope and trust that it has been, and that it will be still more abundantly, —it ought not to be listlessly read, merely as a novel or as any other piece of fiction, but it must be thoughtfully and carefully studied, until its contents —in all their bearings—be completely mastered and understood.

CHAVASSE'S
ADVICE TO A MOTHER.

PART I.—INFANCY.

Infant and suckling.—1 SAMUEL.
A rose with all its sweetest leaves yet folded.—BYRON.
Man's breathing Miniature!—COLERIDGE.

PRELIMINARY CONVERSATION.

1. *I wish to consult you on many subjects appertaining to the management and the care of children: will you favor me with your advice and counsel?*

I shall be happy to accede to your request, and to give you the fruits of my experience in the clearest manner I am able, and in the simplest language I can command, free from all technicalities. I will endeavor to guide you in the management of the health of your offspring. I will describe to you the SYMPTOMS of some of the diseases of children. I will warn you of the approaching danger, in order that you may promptly apply for medical assistance before disease has gained too firm a footing. I will give you the TREATMENT at the moment of some of their more pressing illnesses—when medical aid cannot quickly be procured, and where delay may be death. I will instruct you, in case of accidents, on the IMMEDIATE employment of remedies where procrastination may be dangerous. I will tell you how

a sick child should be nursed, and how a sick-room ought to be managed. I will use my best energy to banish injurious practices from the nursery. I will treat of the means to prevent disease where it be possible. I will show you the way to preserve the health of the healthy, and how to strengthen the delicate. I will strive to make a medical man's task more agreeable to himself and more beneficial to his patient, by dispelling errors and prejudices, and by proving the importance of your *strictly* adhering to his rules. If I can accomplish any of these objects, I shall be amply repaid by the pleasing satisfaction that I have been of some little service to the rising generation.

2. *Then you consider it important that I should be made acquainted with, and be well informed upon, the subjects you have just named?*

Certainly! I deem it to be your imperative duty to *study* the subjects well. The proper management of children is a vital question,—a mother's question,—and the most important that can be brought under the consideration of a parent; and, strange to say, it is one that has been more neglected than any other. How many mothers undertake the responsible management of children without previous instruction, or without forethought! They undertake it as though it might be learned by intuition, or by instinct, or by affection. The consequence is, that frequently they are in a sea of trouble and uncertainty, tossing about without either rule or compass; until, too often, their hopes and treasures are shipwrecked and lost.

The care and management, and consequently the health and future well-doing of the child, principally devolve upon the mother; "for it is the mother after all that has most to do with the making or marring of the man."* Dr. Guthrie justly remarks that—"Moses

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* *Good Words*, Dr. W. Lindsay Alexander.

might have never been the man he was unless he had been nursed by his own mother. How many celebrated men have owed their greatness and their goodness to a mother's training!" Napoleon owed much to his mother. "'The fate of a child,' said Napoleon, 'is always the work of his mother;' and this extraordinary man took pleasure in repeating, that to his mother he owed his elevation. All history confirms this opinion. . . . The character of the mother influences the children more than that of the father, because it is more exposed to their daily, hourly observation."—*Woman's Mission.*

I am not overstating the importance of the subject in hand when I say that a child is the most valuable treasure in the world, that "he is the precious gift of God," that he is the source of a mother's greatest and purest enjoyment, that he is the strongest bond of affection between her and her husband, and that

> "A babe in a house is a well-spring of pleasure,
> A messenger of peace and love."—*Tupper.*

I have, in the writing of the following pages, had one object constantly in view—namely, health—

> "That salt of life, which does to all a relish give,
> Its standing pleasure, and intrinsic wealth,
> The body's virtue, and the soul's good fortune—health."

If the following pages insist on the importance of one of a mother's duties more than another it is this,—*that the mother herself look well into everything appertaining to the management of her own child.*

Blessed is that mother among mothers of whom it can be said, that "she hath done what she could" for her child—for his welfare, for his happiness, for his health!

For if a mother hath not "done what she could for her child"—mentally, morally, and physically—woe betide the unfortunate little creature;—better had it been for him had he never been born!

Some few years ago I took up a big Blue Book full of

figures. It was called "The Thirty-ninth Annual Report of the Registrar-General, for the year 1876." The population of England then numbered twenty-four and a half millions. The births were some 900,000; the deaths 500,000. Of this 500,000, nearly half—pray mark this—nearly half of these deaths occurred in children under the age of five years. To bring these large figures home to each of you, fancy every family losing half its children! What havoc! What sorrow!

Further, more than half the children who died under five years, died before attaining the end of the first year. Less than one-third of all children born reach their fifth year; more than one-sixth never see the end of their first year. You ask—"What can science do to alter this state of matters?" Let me give you an example. The Dublin Lying-in Hospital is a world-known institution. From the year 1757 to 1783,—a period of twenty-six years,—of seventeen and a half thousand children born, nearly one in six died. In the years 1825 to 1832—a period of seven years—of sixteen and a half thousand children, only one died out of every sixty! Figures may be made to prove anything. In this case, I want them honestly to prove to you that disease and untimely death are not the result of chance or from necessity, but are mainly attributable to the breaking of laws and conditions on which a beneficent Creator has decreed that the health and welfare of our bodies shall depend. Now, all of you would have this nation a pride, a glory among the nations of the earth! Listen! "A large and healthy population is the life and strength of a nation and the source of its success in science, art, agriculture, commerce." What are the essentials for procuring infant health and preventing disease? Pure air, cleanliness, suitable clothing, plain and natural food, prompt and skilful medical aid. You

may ask—"Suppose I do save a child by following these directions, what good shall I do to him, the nation, or myself?" Well, the probable duration of life of a child, one year old or at birth—that is, how long it will live—is reckoned to be forty years. Think of this! Forty years for good or evil! I need not answer the question further. What is the constant thought of the young mother or guardian, a thought dwelt on in deepest love and awe? Is it not *the* infant—*their* infant? What subject engrosses the father's anxiety and makes him speculate so on the future? The prosperity and happiness of his child. The old Greeks summed up infant life well, when they said—"That what made men citizens, patriots, heroes, was the love of wedded wife and child."

ABLUTION.

3. *Is a new-born infant, for the first time, to be washed in warm or in cold water?*

It is not an uncommon plan to use *cold* water from the first, under the impression of its strengthening the child. This appears to be a cruel and barbarous practice, and is likely to have a contrary tendency. Moreover, it frequently produces inflammation of the eyes, or stuffing of the nose, or inflammation of the lungs, or looseness of the bowels. Although I do not approve of *cold* water, we ought not to run into an opposite extreme, as *hot* water would weaken and enervate the babe, and thus would predispose him to disease. *Warm* water will be the best with which to wash him. This, if it be summer, should have its temperature gradually lowered, until it be tepid (85° to 92° Fahr.).* *Rain-water* is

* A bath-tub placed upon two chairs and holding either six or eight quarts of water, and sufficiently large for the whole body of the child, is considered the best.

better than well or cistern water, being softer. When procurable it should be used in preference. It may be either boiled or heated by the addition of ordinary hot water.

It will be necessary to use soap. Castile soap is the best for the purpose, being less irritating to the skin than the ordinary soap. Care should be taken that it does not get into the eyes, as it may produce in them either inflammation or smarting.

If the skin be delicate, or if there be any excoriation or "breaking-out" on the skin, then Glycerine soap, instead of the Castile soap, ought to be used.

4. *At what age do you recommend a mother to commence washing her infant, either in the tub or in the nursery basin?*

From birth. Do not be afraid of water, and that in plenty, as it is one of the best strengtheners to a child's constitution. How many infants suffer from excoriation for the want of water!

5. *Which do you prefer —flannel or sponge—to wash a child with?*

A piece of flannel, is, for the first part of the washing, very useful—that is to say, to use with the soap, and to loosen the dirt and the perspiration; but for the finishing-up process, a sponge—a large sponge—is superior to flannel, to wash all away, and to complete the bathing. A sponge cleanses and gets into all the nooks, corners, and crevices of the skin. Besides, to finish up with, it is softer and more agreeable to the tender skin of a babe than flannel. Moreover, it holds more water than flannel, and thus enables you to stream the water more effectually over him. A large sponge will act like a miniature shower bath, and will thus brace and strengthen him.

6. *To prevent a new-born babe from catching cold, is it necessary to wash his head with brandy?*

It is *not* necessary. The idea that it will prevent

cold is erroneous, as the rapid evaporation of heat which the brandy causes is more likely to give than to prevent cold.

7. *Ought that tenacious, paste-like substance, adhering to the skin of a new-born babe, to be washed off at the first dressing?*

It should, provided it be done with a soft sponge and with care. If there be any difficulty in removing the substance, gently rub it with a flannel,* smeared with Vaseline, or Lanoline, or Sweet-oil. After the parts have been well and gently rubbed with the Vaseline, or Oil, or Lanoline, let all be washed off together, and be thoroughly cleansed away, by means of a sponge, and soap, and warm water. Then, to complete the process, gently put the child for a minute or two in his tub. If this paste-like substance be allowed to remain on the skin, it might produce either an excoriation, or a "breaking-out." Besides, it is impossible, if that tenacious substance be allowed to remain on it, for the skin to perform its proper functions.

8. *Have you any general observation to make on the washing of a new-born infant?*

The ablution should be thorough; and this can only be properly done by putting him bodily either into a tub, or into a bath, or into a large nursery-basin, half filled with water. The head, before placing him in the bath, should be first wetted (but not dried); then im-

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*Mrs. Baines (who has written so much and so well on the Management of Children), in a *Letter* to the Author, recommends flannel to be used in the *first* washing of an infant, which flannel ought afterwards to be burned; and that the sponge should be only used to complete the process, to clear off what the flannel had already loosened. She also recommends that every child should have his own sponge, each of which should have a particular distinguishing mark upon it, as she considers the promiscuous use of the same sponge to be a frequent cause of *ophthalmia* (inflammation of the eyes). The sponges cannot be kept too clean.

mediately put him into the water, and, with a piece of flannel well soaked, cleanse his whole body, particularly his arm-pits, between his thighs, his groins, and his hams ; then take a large sponge in hand, well filled, and allow the water from it to stream all over the body particularly over his back and loins. Let this advice be well observed, and you will find the plan most strengthening to your child. The skin must, after every bath, be thoroughly but quickly dried with warm, dry, soft towels, first enveloping the child in one, and then gently absorbing the moisture with the towel, not roughly scrubbing and rubbing his tender skin as though a horse were being rubbed down.

The ears must, after each ablution, be carefully and well dried with a soft dry napkin. Inattention to this advice has sometimes caused a gathering in the ear—a painful and distressing complaint ; and at other times it has produced deafness. Do not, however, go to the opposite extreme. Hairpins and the hard ends of towels may be the cause of a ruptured drum and acute inflammation of the ear.

Directly after the infant is dried, all the parts that are at all likely to be chafed ought to be well powdered. After he is well dried and powdered, the chest, the back, the bowels, and the limbs should be gently rubbed, taking care not to expose him unnecessarily during such friction.

Strong offspring can be washed twice a day—the weakly only once. You all know the various bathing utensils, beginning from the infant tub to the adult long bath. Then we have the various kinds of baths,—cold, tepid, hot, salt, vapor, &c. These must be used according to circumstances. The ordinary temperature of a warm bath should be 90° to 96° Fahr. Always use a bath thermometer. The best time for bathing is in the morning. In the evening it is better to sponge the child's body well, rather than to exhaust it with a formal

bath. A good large clean sponge will do much to cleanse the skin. Two rules should be before those who wash children—quickness and efficient washing. One is sometimes asked—"Does cold water harden the body? Speaking generally, I would reply, "No." Bathing is a great agent in restoring health and in maintaining it. It is also a powerful—a very powerful—agent for destroying life. Hence my advice—Ask your doctor what to do in the matter.

9. *How often should a new-born infant be washed during the day?*

A babe should be washed every night of his life from head to foot; and he ought to be partially washed every morning; indeed it is necessary to use a sponge and a little warm water frequently during the day, namely, each time after the bowels have been relieved. *Cleanliness is one of the grand incentives to health,* and therefore cannot be too strongly insisted upon. If more attention were paid to this subject, children would be more exempt from chafings, "breakings-out," and consequent suffering, than they at present are. After the second month, if the babe be delicate, the addition of two handfuls of table-salt to the water he is washed with in the morning will tend to brace and strengthen him.

10. *Should the child be fed before being washed?*

No. Wash the child before putting him to the breast or giving him food.

11. *What precautions are necessary in bathing an infant?*

Put it into the water gently. Do not frighten it by suddenly dipping it. See that your left hand grasps the buttocks; that the spine and head rests on your left arm. Keep the head well out of the water.

12. *What are the best powders to apply to the child's body?*

These may consist of finely powdered starch to which

5 per cent. of Boracic Acid is added to prevent decomposition, or Fehr's Compound Talcum Powder. Violet Powder is finely powdered starch scented. "Sanitary Rose Powder," which is pure Boracic Acid, is also good, and is moreover freely soluble in the bath water.

13. *If the parts about the groin and fundament be excoriated, what is then the best application?*

After sponging the parts with tepid water, holding him over his tub, and allowing the water from a well-filled sponge to stream over the parts, and then drying them with a soft napkin (not rubbing, but gently dabbing with the napkin), there is nothing better than dusting the parts frequently with finely powdered Native Carbonate of Zinc—Calamine Powder—or with a powder consisting of equal parts of Oxide of Zinc and Starch thoroughly mixed. The best way of using the powder is, tying up a little of it in a piece of muslin, and then gently dabbing the parts with it.

Remember, excoriations are generally owing to the want of water,—to the want of an abundance of water. An infant who is every day well soused and well swilled with water seldom suffers either from excoriations or from any other of the numerous skin diseases. Cleanliness, then, is the grand preventive of, and the best remedy for excoriations. Naaman, the Syrian, was ordered "to wash and be clean," and he was healed, "and his flesh came again like unto the flesh of a little child, and he was clean." This was, of course, a miracle; but how often does water, without any special intervention, act miraculously both in preventing and in curing skin diseases!

14. *Should the infant's napkins be washed with soda?*

An infant's clothes, napkins especially, ought never to be washed with soda. The washing of napkins with soda is apt to produce excoriations and breakings-out. "As washerwomen often deny that they use soda, it can be easily detected by simply soaking a clean white nap-

kin in fresh water and then tasting the water; if it be brackish and salt, soda has been employed."

15. *Who is the proper person to wash and dress the babe?*

The monthly nurse, as long as she is in attendance; but afterwards the mother, unless she should happen to have an experienced, sensible, thoughtful nurse, which, unfortunately, is seldom the case.*

16. *What is the best kind of apron for a mother, or for a nurse, to wear, while washing the infant?*

A flannel apron,—a good, thick, soft flannel, usually called bathcoating,—made long and full. It ought to be well dried every time before it is used.

17. *Perhaps you will kindly recapitulate, and give me further advice on the subject of the ablution of my babe.*

Let him by all means, then, from birth, be bathed either *in* his tub, or *in* his bath, or *in* his large nursery-basin; for if he is to be strong and healthy, *in* the water every morning he must go. The water ought to be warm. It is dangerous for him to remain for a long period in his bath; this holds good in a tenfold degree if the child have either a cold or pain in his bowels. Quickly bath and quickly dress. Take care that immediately after he comes out of his tub, he is well dried with warm towels. It is well to let him have his bath the first thing in the morning, and before he has been put to the breast; let him be washed before he has his breakfast; it will refresh him and give him an appetite. He ought to have his morning ablution on an empty

* "The Princess of Wales might have been seen on Thursday taking an airing in a brougham in Hyde Park with her baby—the future King of England—on her lap, without a nurse, and accompanied only by Mrs. Bruce. The Princess seems a very pattern of mothers, and it is whispered among the ladies of the Court that every evening the mother of this young gentleman may be seen in a flannel dress, in order that she may properly wash and put on baby's night clothes, and see him safely in bed. It is a pretty subject for a picture.—*Pall Mall Gazette*.

stomach, or it may interfere with digestion, and might produce sickness and pain. In putting him in his tub, let his head be the first part washed. We all know, that in bathing in the sea, how much better we can bear the water if we first wet our head ; if we do not do so, we shiver, and feel starved, and miserable. Let there be no dawdling in the washing ; let it be quickly over. When he is thoroughly dried with warm *dry* towels, let him be well rubbed with the warm hand of the mother or of the nurse. While drying him and while rubbing him, let him repose, and kick, and stretch, either on the warm flannel apron, or else on a small blanket placed on the lap. One bathing in the tub, and that in the evening, is sufficient, and better than night and morning. During the day, as I before observed, he may, after the action either of his bowels or of his bladder, require several spongings of luke-water, *for cleanliness is a grand incentive to health and comeliness.*

Remember, it is absolutely necessary for every child from his earliest babyhood to have a bath, to be immersed every day of his life in the water. This advice, unless in cases of severe illness, admits of no exception. Water to the body—to the whole body—is a necessity of life, of health, and of happiness ; it wards off disease, it braces the nerves, it hardens the frame, it is the finest tonic in the world. Oh, if every mother would follow to the very letter this counsel, how much misery, how much ill health might then be averted !

MANAGEMENT OF THE NAVEL.

18. *How should the navel-string be treated ?*

It may be wrapped in a piece of fine old linen rag and dressed twice a day with Boracic Acid Ointment spread on lint, or be enclosed in absorbent cotton-wool and frequently dusted with dry Boracic Acid Powder. Gamgee tissue or wood-wool wadding may take the place

of absorbent cotton-wool. Do not use *singed* rag ; it frequently irritates the infant's skin.

19. *How ought the navel-string to be wrapped in the rag?*

Take a piece of soft linen rag, about three inches wide and four inches long, and wrap it neatly round the navel-string, in the same manner you would around a cut finger, and then, to keep on the rag, tie it with a few rounds of whity-brown thread ; or wrap it round with cotton-wool, which secure with thread. The navel-string thus covered should be placed, pointing upwards, on the belly of the child, and be secured in its place by means of a flannel binder.

20. *If, after the navel-string has been secured, bleeding should (in the absence of the medical man) occur, how must it be restrained?*

Immediately take off the rag, and tightly retie the navel-string with a skein of four or five whity-brown threads ; and to make assurance doubly sure, after once tying it, pass the threads a second time around the navel-string, and tie it again ; and after carefully ascertaining that it no longer bleeds, fasten it up in a rag as before. Bleeding of the navel-string rarely occurs, yet, if it should do so—the medical man not being at hand—the child's after-health, or even his life, may be endangered if the above directions be not adopted.

21. *When does the navel-string separate from the child?*

From five days to a week after birth ; in some cases not until ten days or a fortnight ; or even, in rare cases, not until three weeks.

22. *If the navel-string does not at the end of a week come away, ought any means to be used to cause the separation?*

Certainly not ; it ought always to be allowed to drop off, which it will readily do when in a fit state. Meddling with the navel-string has frequently cost the

babe a great deal of suffering, and in some cases even his life.

23. *The navel is sometimes a little sore after the navel-string comes away; what ought then to be done?*

A little Boracic Ointment should be spread on lint, and be applied every night and morning to the part affected, until it be quite healed.

24. *The navel has a watery discharge from it, and the surrounding skin is sore; what should be done?*

You should call the attention of your doctor to this. Small red prominent projections, which have a moist surface, are sometimes left after the separation of the navel-string. These may often be seen quite readily, but sometimes they are hidden by overhanging skin until brought in view by its retraction. They can be cured by a simple operation by your doctor, but very exceptionally they may be associated with a serious defect in relationship with the bowel.

NAVEL RUPTURE—GROIN RUPTURE.

25. *What are the causes of a rupture of the navel? What ought to be done? Can it be cured?*

(1) A rupture of the navel is sometimes occasioned by a meddlesome nurse. She is very anxious to cause the navel-string to separate from the infant's body, more especially when it is longer in coming away than usual. She, therefore, before it is in a fit state to drop off, forces it away. It may exist from birth, owing to the persistence of a condition which is natural while the child is still within the womb, or it is brought about by a failure in the closing up of the layers forming the walls of the abdomen. (2) The rupture, at another time, is occasioned by the child incessantly crying. A mother, then, should always bear in mind that a rupture of the navel is often caused *by* much crying, and that it *occasions* much crying; indeed, it is a frequent cause of incessant crying. It appears within

the first few months of life, and the bowel protrudes usually just above the scar of the navel. A child, therefore, who, without any assignable cause, is constantly crying, should have his navel carefully examined.

A rupture of the navel ought always to be treated early—the earlier the better. Ruptures of the navel can only be *cured* in infancy and in childhood. If it be allowed to run on, or resist all treatment, a *cure* is impossible unless a surgical operation be performed.

A good form of treatment is a Burgundy pitch plaster, spread on a soft piece of wash-leather, about the size of the top of a tumbler, with a properly-adjusted pad (made from the plaster) fastened on the center of the plaster, which will effectually keep back the rupture, and in a few weeks will cure it. It will be necessary, from time to time, to renew the plaster until the cure be effected. These plasters will be found both more efficacious and pleasant than either truss or bandage, which latter appliance sometimes galls, and does more harm than good.

At the Evelina Hospital for Sick Children a piece of poroplastic felt, about the size of half-a-crown, and three or four times as thick, is strapped over the seat of the rupture when the bowel has been pushed back. The strapping should be four inches broad, the pad should be placed in the center, and should completely surround the body, the ends overlapping. It must be worn continuously from one to three months, and requires renewal from time to time. When it is changed great care must be exercised to see that the bowel does not again protrude ; and to prevent this accident the finger should be placed upon the spot.

26. *What are the causes of groin rupture?*

The testicle, in its descent from the cavity of the abdomen into the "purse" (scrotum), which happens at the eighth month of the infant's life within the womb, carries with it in its course its surrounding

membrane (peritoneum). The organ may then either still remain in direct communication with the abdominal cavity because—(1) The canal along which it has passed, and which is lined with the membrane previously mentioned, does not close up, as is natural; or (2) the canal along which that organ has passed may be only insecurely closed after its descent, and leave a weak spot in the groin. Either, then, along this open channel the bowel readily follows the track of the organ from the abdomen to the "purse," or under some unusual pressure of the abdominal contents from within during *coughing*, or *crying*, or *straining at stool*, or during *urination*, the wall gives way, and allows the rupture to descend. It may then only bulge in the groin, or pass directly into the "purse." The importance, therefore, of paying prompt attention to such complaints as hooping cough, of remedying any tendency to constipation, of the treatment of worms and the prevention of rickets with chronic bowel complaints, of keeping the child in a good state of health physically and morally, so that fits of crying are not indulged in, and, beyond all things, of seeing that the child does not require *circumcision*, cannot be overestimated. Any tightness of the orifice and undue length of the skin at the end of the part, bringing about straining and difficulty in passing water, must be attended to in this way, and your doctor should be communicated with at once. Groin rupture may develop at any age, and may be found on one or both sides. It may be noticed soon after birth, but may not occur for some months or years afterwards. It is seen mostly in male children, seldom in girls.

27. *If an infant have a groin rupture* (*an inguinal rupture*), *can that also be cured?*

Certainly, if, soon after birth, it be properly treated. Consult a medical man, and he will see you are provided with a well-fitting truss, *which will eventually effect a*

cure. If the truss be properly made (under the direction of an experienced surgeon) by a skilful surgical instrument maker, a beautiful, nicely-fitting truss will be supplied, which will take the proper and exact curve of the lower part of the infant's belly, and will thus keep on without using any under-strap whatever—a great desideratum, as these under-straps are so constantly wetted and soiled as to endanger the patient becoming excoriated. But if this under-strap is to be superseded, the truss must be made exactly to fit the child—to fit him like a ribbon ; which is a difficult thing to accomplish unless it be fashioned by a skilful workman. It is only lately that these trusses have been made without under-straps. Formerly the under-straps were indispensable necessaries.

These groin-ruptures require great attention and supervision, as the rupture (the bowel) must, before putting on the truss, be cautiously and completely returned into the belly. Every care should be used to prevent the chafing and galling of the tender skin of the babe, which an ill-fitting truss would be sure to occasion. If care and skill be bestowed on the case a perfect cure might in due time be ensured. The truss must not be discontinued until a *perfect* cure is effected.

When a properly-fitting truss, which should be entirely covered by rubber or xylonite, has been once adjusted this must not removed, and must be worn night and day. The infant can have his bath with the truss *on* in the usual way. The skin underneath can be kept in a healthy state by the careful use of Boracic Acid and starch powder dusted underneath the instrument, and any signs of trouble from pressure adjusted by the application of absorbent wool. *Two* trusses should be made for the child *at the same time.* When it is necessary to remove the truss, this must be done with the greatest care and precaution. The child must be placed on his back and soothed in every way. Before removal

of the truss the finger should be placed underneath the old truss on the canal of the groin, along which the rupture descends, and then the fresh truss applied immediately. *Should the rupture be allowed to come down, much of the previous treatment has been lost.* If the rupture can be kept up for three months in an infant the cure is usually complete ; it requires longer in older children.

Let me strongly urge you to see that my advice is carried out to the very letter. A groin-rupture can only be cured by this means in infancy and childhood. Should this fail, either a surgical operation will be necessary to bring about a *cure,* or a truss will have to be *worn through life*—a great annoyance and a perpetual irritation. A boy with a rupture is not eligible for either the Army or the Navy, or for other callings, and would have to be operated upon successfully to ensure his passing the necessary medical examination.

28. *How should the eyes be treated after birth ?*

Immediately after the navel string has been tied, and *before bathing the infant,* the eyes should be freed from any discharges adherent to them by means of a soft rag, which should then be thrown into the fire at once. They are then to be *thoroughly* cleansed with a warm 5 per cent. solution of Boracic Acid. When the outside has been cleaned some of the lotion may be allowed to *go into* the eyes. This treatment will assist greatly in preventing inflammation of the eyes in the new-born, and will save many an infant worse ills to those delicate sense organs. The infant should be carefully examined immediately after birth. All the orifices should be closely inspected—as the ears, nose, anus—as sometimes the natural openings are obstructed, and little operations are required.

CLOTHING.

29. *Is it necessary to have a flannel cap in readiness to put on as soon as the babe is born?*

Sir Charles Locock considered that a flannel cap was not necessary, and asserted that all his best nurses had long discarded flannel caps. Sir Charles has stated that since the discontinuance of flannel caps infants had not been more liable to inflammation of the eyes. Such authority is, in my opinion, conclusive. My advice, therefore, to you is, discontinue by all means the use of flannel caps.

30. *What kind of a binder do you recommend—a flannel or a calico one?*

I prefer flannel, for two reasons—first, on account of its keeping the child's bowels comfortably warm; and, secondly, because of its not chilling him, and thus endangering cold, etc., when he wets himself. The binder ought to be moderately, but not tightly applied, as, if tightly applied, it would interfere with the necessary movement of the bowels.

31. *When should the binder be discontinued?*

When the child is two or three months old. The best way is to tear a strip off daily for a few mornings, and then to leave it off altogether. Nurses who take charge of an infant when the monthly nurse leaves are frequently in the habit of at once leaving off the binder, which often leads to ruptures when the child cries or strains. It is far wiser to retain it too long than too short a time; and when a child catches hooping-cough whilst still very young it is safer to resume the belly-band.

32. *Have you any remarks to make on the clothing of an infant?*

A babe's clothing ought to be light, warm, loose, and free from pins. (1) *It should be light* without being too airy. Many infants' clothes are both too long and too cumbersome. It is really painful to see how some poor little babies are weighed down with a weight of clothes. They may be said to "bear the burden," and that a heavy one, from the very commencement of their lives!

How absurd, too, the practice of making them wear *long* clothes! Clothes to cover a child's feet, and even a little beyond, may be desirable; but for clothes, when the infant is carried about, to reach to the ground, is foolish and cruel in the extreme. I have seen a delicate baby almost ready to faint under the infliction. (2) *It should be warm* without being too warm. The parts that ought to be protected are the chest, the bowels, and the feet. If the infant be delicate, especially if he be subject to inflammation of the lungs, he ought to wear a fine flannel, instead of his usual shirts, which should be changed as frequently. (3) *The dress should be loose*, so as to prevent any pressure upon the blood-vessels, which would otherwise impede the circulation, and thus hinder a proper development of the parts. It ought to be loose about the chest and waist, so that the lungs and the heart may have free play. It should be loose about the stomach, so that digestion may not be impeded; it ought to be loose about the bowels, in order that the spiral motion of the intestines may not be interfered with; hence the importance of putting on a binder moderately slack. It should be loose about the sleeves, so that the blood may course, without let or hindrance, through the arteries and veins. It ought to be loose everywhere, for Nature delights in freedom from restraint, and will resent, sooner or later, any interference. Oh! that a mother would take common sense, and not custom, as her guide! (4) No pins should be used in the dressing of a baby. Inattention to this advice has caused many a little sufferer to be thrown into convulsions.

The generality of mothers use no pins in the dressing of their children; they tack every part that requires fastening with a needle and thread. They do not even use pins to fasten the baby's diapers. They make the diapers with loops and tapes, and thus altogether supersede the use of pins in the dressing of an infant.

The plan is a good one, takes very little extra time, and deserves to be universally adopted.

33. *What description of clothing do you recommend for my child?*

Cotton is preferable to linen, as being warmer and less likely to absorb moisture—that is, the body perspiration. We have merino and silk for children with irritable skin, and flannel as the ordinary protective against cold. The essentials of judicious underclothing are that the material shall be light—as regards weight—warm, loosely made, not fastened with pins, but by tape and buttons, properly aired, and changed daily. The object of clothing the body is not a simple case of decency, but because life would perish without suitable covering.

For the protection of the legs and thighs, as soon as the long clothes are abandoned, long, loose, knitted woolen drawers must be made, reaching on the one hand from the ankles and tied there, and on the other to the garment covering the chest, to which they are to be fitted. They can be fastened either over or under the socks. Summer clothing should never be put on until June, or later if the weather be inclement. And here I am going to plead on behalf of my younger brothers and sisters. Do not clothe your children, as regards their outside garments, in the same material, color, and style. Each child is a separate individual, differing from the other, maybe, in outward form, feature, complexion. Make each a study. If this were the rule one would not see the wonderful sights, so to speak, of juvenile battalions in blue, and red, and green, and yellow—a sight, to my mind, telling a tale of an indifferent mother, or a careless mother, or a mother without any taste. And, next, the clothing should be in accordance with the means of the parents. Let me tell you a little secret. Whenever I find a showy dress with shabby gloves or boots I know

what the underclothing will be, and I stamp the wearer accordingly. You know the couplet, "Adorned the least, adorned the most." This does not mean going back to the days of fig leaves, but it does mean moderation and honesty!

34. *Is there any necessity for a nurse being particular in airing an infant's clothes before they are put on? If she were less particular would it not make him more hardy?*

A nurse cannot be too particular on this head. A babe's clothes ought to be well aired the day before they are put on; they should *not* be put on warm from the fire. It is well, where it can be done, to let him have clean clothes daily. Where this cannot be afforded, the clothes, as soon as they are taken off at night, ought to be well aired, so as to free them from the perspiration, and that they may be ready to put on the following morning. It is truly nonsensical to endeavor to harden a child, or any one else, by putting on damp clothes!

35. *What is your opinion of caps for an infant?*

The head ought to be kept cool; caps, therefore, are unnecessary. If caps be used at all they should only be worn for the first month in summer, or for the first two or three months in winter. If a babe take to caps it requires care in leaving them off, or he will catch cold. When you are about discontinuing them put a thinner one on every time they are changed until you leave them off altogether.

But, remember, my opinion is that a child is better *without* caps; they only heat his head, cause undue perspiration, and thus make him more liable to catch cold.

If a babe does not wear a cap in the day it is not at all necessary that he should wear one at night. He will sleep more comfortably without one, and it will be better for his health. Moreover, night-caps injure both the thickness and beauty of the hair.

36. *Have you any remarks to make on the clothing of*

an infant when, in the winter time, he is sent out for exercise?

Be sure that he is well wrapped up. He ought to have under his cloak a knitted worsted spencer, which should button behind; and, if the weather be very cold, a shawl over all; and, provided it be dry above, and the wind be not in the east or in the northeast, he may then brave the weather. He will then come from his walk refreshed and strengthened, for cold air is an invigorating tonic. In a subsequent Conversation I will indicate the proper age at which a child should be first sent out to take exercise in the open air.

37. *At what age ought an infant "to be shortened?"*

This will depend upon the season. In the summer the right time "for shortening a babe," as it is called, is at the end of two months; in the winter, at the end of three months. But if the right time for "shortening" a child should happen to be in the spring let it be deferred until the end of May. The American springs are very trying and treacherous, and sometimes in April the weather is almost as cold and the wind as biting as in winter. It is treacherous, for the sun is hot; and the wind, which is at this time of year frequently easterly, is keen and cutting. I should far prefer "to shorten" a child in winter than in the early spring.

DIET.

38. *Do you advise that* ALL *mothers should feed their infants from the breast?*

It is one of the greatest privileges of maternity to feed its young from its own body. A healthy mother who, for the sake of the contour of her chest, or because of the necessarily enforced abstention from gaiety, passes her offspring to the care of strangers for its nourishment, is unworthy the holy office of a matron—is no good citizen. The very brute creation cries "Shame on her!" Every healthy mother ought to feed her

young from the rich supply of food granted her for that purpose by nature. Moreover, nursing is beneficial to the mother—it stimulates the womb, and is a great preventive of future harm to that organ.

"All mothers should nurse their own babies. There is nothing that binds a child to its mother, or a mother to her child, more than the feeling that its very life is drawn from herself. It teaches her to control her own temper and actions that she may not injure her child. There is nothing more wonderful than the God-love God implants in a mother's heart with the gift of her first babe."

39. *Are there any cases in which you hold a different opinion?*

Yes. As I condemn the *healthy* mother for not feeding her child, with equal emphasis I condemn the *unhealthy* mother for trying to perform the duty. Experience shows that those who least have the strength are those who most strive to fulfil this duty.

40. *Whom would you class as the* unhealthy *mothers?*

Mothers who are suffering from consumption or who are the subjects of some serious organic disease should not be permitted to nurse. On the other hand, it is important that the mother should not be considered incapable of nursing successfully because she happens to *appear* delicate-looking. In such a case a chemical analysis of the breast milk may decide in favor of her being allowed to do so. All those about to become mothers should consult their medical attendant as to their fitness to nurse their coming offspring.

If there is a strong family history of insanity, *prolonged* nursing may be most injurious to the MOTHER, and her mental balance may become deranged.

41. *Has the mind any influence on the body of the mother, and so on the nursling?*

Yes, a great influence for good and evil. The child's health may be marred and seriously damaged by colic,

flatulency, diarrhœa, and sickness, and even its life endangered by convulsions and exhaustion owing to a mother's want of control over her emotions. Women of a highly nervous temperament do not make good nurses. Fits of rage and temper, seasons of fasting, with their attendant emotional disturbance, the worries, anxieties, and vicissitudes of daily life, *if allowed uncontrolled sway,* will induce such changes in the milk as to make it unfit for nourishing the babe. When a mother has set herself the task of nursing her infant she must recognize that the undertaking is a serious one—one not to be viewed lightly—and devote herself solely to that object and the preservation of her health ; otherwise it may be imperative in the interests of the child to provide other means of rearing, which may be greatly to the child's detriment,

43. *If the mother becomes pregnant again should she continue to nurse her child ?*

If the babe is thriving, and if the mother's health continues satisfactory, the baby need not be weaned until the sixth month ; but if the mother's health commences to fail from the double drain upon her constitution, or if the child commences to suffer from bowel troubles, owing to an alteration in the quality of the milk, then weaning should no longer be delayed. There is the *possible* risk that, owing to irritation of the womb from the stimulation of the breasts by the babe, miscarriage might occur, but the risk is a *very* slight one. You should be guided in these matters by your medical attendant.

43. *If the mother's courses appear should she nurse ?*

In very many instances the baby will suffer no ill effects, but in some cases the infant develops bowel troubles in the shape of colic and diarrhea, and these bowel disorders may happen at the recurrence of every period. When this happens it appears to be due to an increase of the proteids (see Conversation 50) in the

milk, shown by the presence of curds in the stools. Under such circumstances a little boiled water may be given to the infant *before* feeding, or the mother may reduce the quantity of *meat* taken during the day. A chemical examination of the milk might be made during this period, especially if it recurs, and a remedy suggested thereby. The infant must not be weaned unless it is *absolutely necessary.*

44. *Are you an advocate for putting the baby to the breast soon after birth, or for waiting, as many do, until the third day?*

The infant ought to be put to the bosom soon after birth ; the interest both of the mother and of the child demands it. It will be advisable to wait three or four hours, that the mother may recover from her fatigue, and then the babe must be put to the breast. If this be done, he will generally take the nipple with avidity.

It might be said that at so early a period there is no milk in the bosom ; but such is not usually the case. There is generally a *little* from the very beginning, which acts on the baby's bowels like a dose of purgative medicine, and appears to be intended by Nature to cleanse the system. But, provided there be no milk at first, the very act of sucking not only gives the child a notion, but, at the same time, causes "a draught" (as it is usually called) in the breast, and enables the milk to flow easily.

If there be *no* milk in the bosom—the babe having been applied once or twice to determine the fact—then you must wait for a few hours before applying him again to the nipple, that is to say, until the milk be secreted.

An infant who for two or three days is kept from the breast, and who is fed upon gruel, generally becomes feeble, and frequently, at the end of that time, will not take the nipple at all. Besides, there is a thick cream

(similar to the biestings of a cow), which, if not drawn out by the child, may cause inflammation and gathering of the bosom, and consequently great suffering to the mother. Moreover, placing him *early* to the breast moderates the severity of the mother's "after-pains" and lessens the risk of her flooding. A new-born babe must *not* have gruel given to him, as it disorders the bowels, causes a disinclination to suck, and thus makes him feeble.

45. *If an infant show any disinclination to suck, or if he appear unable to apply his tongue to the nipple, what ought to be done?*

Immediately call the attention of the medical man to the fact, in order that he may ascertain whether he be tongue-tied. If he be, the simple operation of dividing the bridle of the tongue will remedy the defect, and will cause him to take the nipple with ease and comfort.

46. *Provided there be not milk* AT FIRST, *what ought then to be done?*

Wait with patience. If the child wakes up crying frequently it should be soothed to sleep again, and it may be given a little slightly sweetened water in a tea-spoon. Mothers with their first children not infrequently have a scanty supply of milk for the first few days, but it need not be feared that the infant will suffer on that account. The infant ought to be put to the nipple every four hours, but not oftener, until he be able to find nourishment.

If after the application of the child for a few times he is unable to find nourishment, then it will be necessary to wait until the milk be secreted. As soon as it is secreted he must be applied with great regularity *alternately* to each breast.

I say *alternately* to each breast. *This is most important advice.* Sometimes a child, for some inexplicable reason, prefers one breast to the other, and the mother, to save a little contention, concedes the point, and

allows him to have his own way. And what is often the consequence ?—a gathered breast !

We frequently hear of a babe having no notion of sucking. This "no notion" may generally be traced to bad management, to stuffing him with food, and thus giving him a disinclination to take the nipple at all.

47. *How often should a mother suckle her infant?*

A mother generally suckles her baby too often, having him almost constantly at the breast. This practice is injurious both to parent and to child. If too frequent applications are made to the breast the milk is too rich ; if the intervals are unduly prolonged the milk is too thin and weak. The stomach requires repose as much as any other part of the body ; and how can it have it, if it be constantly loaded with breast milk ? The infant should be suckled between the hours of 5 A.M. and 11 P.M. For the intervals of feeding, the number of feedings in the twenty-four hours, and the capacity of the infant's stomach at certain periods of life (average amount of each feeding), I must refer you to Conversation 59, where all the necessary information is arranged in tabular form.

If a baby were suckled at stated periods he would only look for the bosom at those times, and be satisfied. A mother is frequently in the habit of giving the child the breast every time he cries, regardless of the cause. The cause too frequently is that he has been too often suckled—his stomach has been overloaded ; the little fellow is consequently in pain, and he gives utterance to it by cries. How absurd is such a practice ! We may as well endeavor to put out a fire by feeding it with fuel. An infant ought to be accustomed to regularity in everything, in times for sucking, for sleeping, etc. No children thrive so well as those who are thus early taught.

48. *Where the mother is* MODERATELY *strong, do you*

advise that the infant should have any other food than the breast?

Certainly not, Let me urge upon you the importance of keeping the child *entirely* to the breast. There is no *real* substitute for mother's milk; there is no food so well adapted to his stomach; there is no diet equal to it in developing muscle, in making bone, or in producing that beautiful plump, rounded contour of the limbs; there is nothing like a mother's milk *alone* in making a child contented and happy, in laying the foundation of a healthy constitution, in preparing the body for a long life, in giving him tone to resist disease, or in causing him to cut his teeth easily and well; in short, *the mother's milk is the greatest temporal blessing an infant can possess.*

49. *Would you supplement the supply of the mother's milk with artificial food?*

Certainly. If the mother is unable to nurse her child entirely she should do so partially, and supplement the breast milk by Biedert's Cream Mixture, or Gaertner's Mother Milk (see Conversation 52), in the absence of a chemical analysis of her milk. If several chemical analyses of the mother's milk can be obtained, and this is agreeing with the child, though not sufficient in quantity, it will be easier to manufacture a cow's milk mixture that will be likely to agree. For the purpose of analysis the milk should be withdrawn by the breast pump after the infant has been five minutes at the breast. If a chemical analysis is out of the question, and the Cream Mixture or Gaertner's Milk does not suit, some slight modification may have to be made in their composition. The thriving of the infant and the freedom from bowel troubles will be the best indication that the food is suitable. It is far better that the infant should be fed by breast milk and an artificial food than by artificial food alone.

50. *In the event of the mother being totally unable*

to feed her infant, what artificial food would you recommend?

There is but one answer to this question, and that is cow's milk; but the subject cannot be dismissed in these few words. Chemical analysis of healthy human milk shows that it is composed of the following constituents :—

Fat	4	per cent.
Proteids	1 to 2	"
Milk Sugar	7	"
Various Salts (lime, potash, and soda, &c.)	0·2	"
Water	87 to 88*	"

Cow's milk, on the other hand, is formed as follows :—

Fat	3·75	per cent.
Proteids	3·76	"
Milk Sugar	4·42	"
Various Salts (lime, potash, and soda, &c.)	·68	"
Water	87·39	"

The variations found, however, in different samples of what may be considered healthy milk, both human and cow's, are considerable, and the above figures are not by any means constant, different samples giving different results. The milk with the first child is richer than in the case of the mother who has borne several children. Even samples of milk taken from both breasts at the same time show considerable variations, and the milk first drawn from the breast is not nearly so rich in fat as that taken at the end; the total of the solids is also greater. In all cases, however, there are certain important differences, which are as follows :—

In human milk there is a little more fat, the quantity of proteids is not nearly so large, the curd-forming

* Rotch's analysis. For the percentage of fat, Pfeiffer gives 3.1; Adriance, 3.8; Leeds, 4.1; Hoffmann, 4.

material (caseinogen) is much less (about one-fourth or one-fifth), the soluble albumin more, and there is also another form of albumin which is not present in cow's milk at all. Further, human curd (caseinogen) is not like that of cows. The former can be digested entirely, a most important constituent containing phosphorus being taken into the system. Cow's curd is not digested entirely, much of the important constituent being lost. The milk-sugar is in greater abundance, and the salts are less. There are, then, important chemical differences; but that is not all. Human milk, when it leaves the breast, is a slightly alkaline fluid of specific gravity 1031 (the more fat the lower the specific gravity, and the more proteids the higher the specific gravity), which, with but few exceptions, is free from germs. Cow's milk is a slightly acid fluid of specific gravity 1029, which, when it is delivered at our homes in large towns and cities, is possibly twenty-four hours old and almost certainly twelve hours. It is swarming with germs, and not only germs, but particles of manure, hair, dirt, straws, hay, and so forth, and often contains Boracic Acid or Salicylic Acid, added by the dealer to *preserve* it. There is, further, the ever-possible invisible added danger that the milk may be contaminated by scarlet fever, typhoid fever, diphtheria, and by tubercle (consumption) germs, not to mention many others. The Public Health Authorities, the Medical Officers of Health, and the Sanitary Inspectors do much to see that the cowsheds are properly cleansed, ventilated, and lighted, the cows healthy, that utensils used by milk venders are cleansed with water undefiled by sewage contamination, quite apart from the detection of gross adulterations (the addition of water, for example); but much, very much, remains to be accomplished to bring about a state of even bordering on perfection amongst cows and their surroundings and cowkeepers.

In these respects, then, the comparison of cow's milk with that of mother's milk is all to the disadvantage of the former; and when it is considered that cows are often fed with unsuitable materials,* with the object of producing a *quantity* of milk, and not with regard to its *quality* for the purposes of infant feeding, there is still more to be desired in the way of improvement.

The "invalid's cow" and the "cow for infants" are often pleasant fictions—a successful ruse to conjure more money out of the pockets of the public. I have inspected a cowshed where there was a notice outside to the effect that such cows were kept, but the *employés*, in the absence of the principal, were not able to find the animals with the above reputations. But quite apart from this consideration, the milk from ONE COW is a *great* mistake. By obtaining the milk supply from a mixed herd of cattle there is less likelihood of encountering great chemical irregularities in its composition, in the shape of deficiency in nourishment, or over-richness. When mixed, a rich milk counterbalances a poor one, and so on; for cows are of different breed. Some are in full milk, others have commenced their milk supply, or have been milked for a long period. Like human beings also, they are subject to many influences which alter the chemical composition of their milk. Cow's milk cannot, therefore, compare with human milk from a healthy mother, leading a healthy life, in any one respect; nor has it been found possible by chemical aid to make it mother's milk, although it is possible to make a passable likeness to it. Still it is not the *real* thing. Even when it has been chemically treated, the curd, which causes so much trouble in infant feeding, is not so fine, and, therefore, so digestible, as in human milk. But, in spite of all this, it remains the food, *par excellence*, which must be relied upon

* Brewery grains, vetches, turnips, linseed and cotton cake.

when the mother's milk fails, or is unavailable. The cow is found everywhere. It has been trained for many ages as a milk producer, and its milk is within the reach of all, rich and poor alike.

The milk of other animals has been used for rearing infants. Thus the ass, the mare, the sheep, and the goat have all been utilized. The milk of the ass is the nearest approach to human milk, but it is very expensive, and procured with difficulty. Goat's milk in chemical composition is much like that of the cow, and there is no particular advantage in using it, save that goats are said not to suffer from consumption (tuberculosis). Whatever animals are selected, their milk *would require modification* to make it resemble that of the human being. The question then arises, How can cow's milk be so treated so as to bring about a substance which is an imitation of human milk ? and, next, What can be done to free it from the various contaminations just related ?

51. *Modified cow's milk* (*simple dilution and addition of sugar-water*).

One answer to the first question is, by dilution with water. A mixture containing one part of cow's milk to two parts of water gives a slightly *acid* fluid, which is found to be deficient in *sugar,* and also in fat. If, instead of adding water, sugar-water, one ounce to a pint of water (5 per cent. solution), is substituted, the deficiency in sugar is remedied. This mixture should be sterilized (see Conversation 53). A one-twentieth part of lime water added to the above mixture, *after sterilization,* makes the fluid slightly alkaline. Many of the poorer children are reared on an unsterilized mixture of this nature and thrive on it ; but, unfortunately, it is deficient in the necessary fat by more than half. At the end of the first month, if the baby is digesting its food well, the proportion of milk may be increased to one part milk and one part sugar-water with the same

proportion of added lime-water. From three to six months of age the proportion should be two-thirds milk and one-third per cent. sugar-water, the addition of lime-water as before. The proteids in the last case are slightly in excess, and the fat approximates more nearly to that found in healthy human milk. By simple dilution with sugar-water alone, then, cow's milk cannot be made to correspond with human milk, as it is still deficient in fat. To accomplish this, the addition of cream is required ; but cream varies in its richness, according to the breed of the cow, the season of the year, the nature of the food, the methods adopted for obtaining it, whether by skimming, or by the use of a centrifugal machine. When the milk has been standing for many hours before skimming the cream so obtained is not suitable ; it is too stale.

Ordinary cream obtained from the centrifugal machine and from *ordinary* cows, not *fancy* milch cattle, and of the strength of 20 per cent. fat, is the most suitable. Do not attempt to obtain a richer cream than this with the idea that you will be benefiting your baby. You will only, most likely, experience the mortification of seeing him suffer from diarrhœa or sickness.

Cream of 20 per cent. strength should be added *by measure*, and not by teaspoons or tablespoons, in the following proportions, to diluted mixtures of milk and water to bring them up to the required standard (human milk 4 per cent. fat).

Milk.	*Water.*	*Cream* (20 per cent. fat).
2 parts and	1 part require	1 drachm to every 2 ozs.
1 part ,,	1 part ,,	1 drachm to every 10 drachms.
1 part ,,	2 parts ,,	1 drachm to every 7½ drachms.
1 part ,,	4 parts ,,	1 drachm to every 6 drachms.

You may continue to use one part milk and two parts

sugar-water if you add fat in the proportion of 1 drachm of *ordinary* cream to every 7½ drachms of the mixture. This is a near approach to human milk in composition, and the baby's digestion is not so likely to be upset as it is by the further addition of cow's milk to water. Sterilize. (See Conversation 53.)

52. *Cream Mixtures.*

In order to prepare Cream Mixture the ingredients are to be mixed *as soon as they are received* from the dairyman, in the following proportions :—

Cream (20 per cent. fat)	1½ fluid ounces.
Milk	1 " ounce.
Water	5 " ounces.
* Lime Water	½ " ounce.
Milk Sugar	3⅜ drachms.

The resulting mixture is a near approach to human milk.

If your dairyman possesses a centrifugal apparatus a milk corresponding to human milk may be obtained in the following way. The milk is placed in the machine mixed with an equal quantity of sterilized water, and so revolved that the outcoming streams are equal. One portion is the skim milk, the other contains the cream, and is a good substitute for human milk ; 4 per cent. of sugar-of-milk (5 7-10 drachms to the pint) is added.* This is the method of preparation of Gaertner's Milk, which is a patented process. It can be procured sterilized in bottles at all druggists. All gross impurities (hay, manure, hair, etc.) are removed by this method.

This reduction of the proteids makes the assimilation of the milk easier to some infants. The excess of fat in this

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* Both these mixtures are to be sterilized, and the lime-water added AFTER sterilization.

milk may be the cause of indigestion, and if that be so, then sterilized "cream milk," which has also been devised to imitate a variety of mother's milk, may be tried. Lloyd, in "The Dairy" of March 15th, 1897, calls attention to some samples of so-called humanized milk. In one sample the fat was 1.1 per cent., in another, 5.2 per cent., and the sugar 3.5 per cent., and he tells of "even worse samples than these, one containing over 10 per cent. of sugar."

53. *How can milk be freed from germs and other contaminations?*

The fresh milk, immediately it arrives, should be received in a perfectly *clean* glass vessel, and then filtered through a thick layer of perfectly *clean* absorbent cotton-wool, placed in a *clean* glass funnel. This will free the liquid from all gross impurities. Microscopical contamination is obviated by sterilization, but the milk used must be fresh. *Stale milk* should not be used.

The simplest way to sterilize is to boil the milk in an open pan, having a glazed lining, which should be spotlessly clean. Another way is as follows: Procure a selection of the best clear white-glass medicine bottles, without internal indentations, capable of holding from two to ten ounces of fluid, according to the age of the infant. See that they are perfectly clean. Partially fill the bottles according to the number of feedings, and the quantity of fluid required for each feeding throughout the day (see Conversation 59), with a measured quantity of the modified milk, which should reach two-thirds of the way up the bottle. Take some clean cotton-wool, tear off enough to fit comfortably and securely into the mouth of each bottle, seize this with a pair of forceps, set light to it, and when it has been burning two or three seconds push it alight into the mouth and neck of the bottle, which it should

securely close but do not soil it with the milk. Obtain a saucepan of sufficient size to comfortably hold the bottles *on end,* and allow the water to circulate *freely* amongst them. *Line* the floor of the saucepan with three or four thicknesses of brown paper. Place the bottoms of the bottles on this (they must not touch the metal, or they will crack), pour hot water into the saucepan so as to reach the level of the milk in the bottles, place the lid on the saucepan, allowing slight steam vent, and boil for thirty minutes. Remove the saucepan from the fire, take off the lid, and as soon as the bottles have sufficiently cooled take them out of the saucepan and place them on ice, or in a cool place.* *The cotton-wool plugs must not be disturbed.* Fetch each bottle as required, remove the cotton-wool plug, pour into the warmer, add the lime-water, and when of body temperature transfer to the feeding bottle, which has been previously warmed by placing in a basin of clean hot water.† Clean the bottles immediately you have fed the baby. Sterilize once or twice a day. One or two feedings may be prepared in reserve.

There are several forms of apparatus on the market for sterilizing milk which can be procured at a trifling cost. Soxhlet's Apparatus is very good and reliable. Dr. Seibert's, manufactured by Eimer & Amend, New York, can also be strongly recommended ; also Arnold's is reliable.

The germs of diseases which may find admission into and contaminate the milk, and also the germs growing in the milk, will be destroyed by exposure to a tempera-

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* In place of the saucepan an ordinary steamer may be used. The bottles should be placed on the perforated floor, they should not touch one another, and the cover should be tightly shut.

† By obtaining large nipples these can be fixed to the bottles themselves, and the feeding bottle discarded.

ture of 70° Cent. (158° Fahr.) Pasteurization) lasting for a period of thirty minutes.

By sterilizing at this temperature the taste and smell of the milk are not altered, and the albumen is not set. If the milk is not fresh it should be exposed to a temperature of 100° Cent. (212° Fahr.) for half an hour, but at this temperature the taste of the milk is altered and the albumen is set. Soxhlet's and Arnold's apparatus will allow either process to be adopted, but for sterilizing by boiling, Seibert's apparatus cannot be surpassed for efficiency and cheapness. When the process has been completed the milk should be placed upon ice in the ice-chest, and used as required, or in some cool place where it will be *quite free from contamination of all kinds.* By the use of separate bottles the danger of contamination of the main supply, as the quantities required are withdrawn from time to time, is prevented. Lime-water should be added *after* sterilization to the milk in *bulk* when it is just warm, and to the milk contained in separate bottles at the time of feeding in the proper proportions. Remember that sterilization will not make a milk "on-the-turn" suitable for consumption, and it is not used for the purpose of rectifying the neglect of the nurse regarding the elementary rules of cleanliness. Sterilized milks are sold, but *home sterilization,* if carefully conducted, is preferable to sterilization conducted by wholesale manufacturers, because the longer sterilized milk is kept, *the worse is usually its condition,* if some germ spores, which are very resistant, have unfortunately escaped destruction. If the milk is kept for any length of time the cream separates from it. There is, unfortunately, one drawback to sterilization, and that is, the baby may develop scurvy; but its occurrence is so very rare that the blessing it confers far outweighs the risk.

54. *Should barley or rice water be added to milk?* *Thin* gelatinous cereal fluids prepared from barley,

oats, or rice are of assistance in making the curd of cow's milk less dense and cheesy, so that it becomes easier to digest, and prevents constipation. The power to digest *very small* quantities of starch is present from birth. The nutritiousness and digestibility of the milk is improved by the addition of *weak solutions* of the above waters, but in preparing them great care must be exercised, or the quantity of starch provided will be *in excess of the infant's powers.* Some babies under three months of age are not benefited by this method of dilution, and may develop an eczematous eruption about the buttocks. If that occur, and if there is no doubt that the barley water is at fault, and that it has *been properly prepared,* then either use malted grain for its preparation, or a teaspoonful of thin gelatine jelly to half a pint of milk and water. Barley water may also be added to Cream Mixture instead of plain water, if necessary. Prepare as follows : *Barley water.* One teaspoonful of Pearl Barley well washed is to be placed in a clean jug ; pour on it a pint of boiling water ; stand by the fire for an hour ; stir frequently ; strain through muslin ; add a pinch of salt. *Oatmeal water.* Take two teaspoonfuls of oatmeal, and treat as above. *Rice water.* Take two teaspoonfuls of ground rice, and treat as above. *The best way* is to take the unaltered grains, wash them well, then grind them in a coffee mill, and prepare as directed for the above. The fluid can be made with sugar-water, used to dilute cow's milk in the proportions previously given, and sterilized in the mixture.

55. *Should milk be partially or wholly predigested?*

Peptonizing milk, and so partially or wholly predigesting it is, in some instances, decidedly beneficial, and infants will thrive on this food when other methods of milk treatment fail with them. It is important NOT to begin to feed the healthy infant with this, and it should be reserved for cases where there is troublesome

sickness or diarrhea, or the digestive powers are exceedingly weak, and then *only to tide the infant over its illness.* There is one great objection to the use of this milk, and that is, the nurse is artificially digesting food the baby's stomach and bowels, under conditions of health, should digest. A function dies, or becomes impaired when it is not used, and so with the infant's digestive juice-forming glands. If they are not called into action they will become very defective from lack of work, and if they have little or no work they will not grow. In this way the seeds of dyspeptic troubles in after life may be sown in infancy!

Peptonized milk is prepared as follows :

(1) *Partial Peptonization.* To each sterilized feed of the infant, which is to be placed in a clean, enamelled saucepan, add a suitable proportion of Fairchild's Zymine Powder, sold in glass tubes, one of these powders being sufficient for a pint of milk. Stir, keep it warm over a spirit lamp or gas stove for fifteen minutes, rapidly boil for three minutes, and feed the baby when the milk is at the right temperature. Lime-water need not be added.

(2) *Complete Peptonization.* Perform the same operation, but the warming must be continued longer. When the milk is clear the process is complete. Boil, and feed the baby as directed in paragraph 1. Lime water is not required.

(3) The same operation can be conducted in the separate bottles of the sterilizer. Each pint of modified milk requires one glass tube of the powder. Place the bottles in water at 110° Fahr. for ten minutes, then add the powders through a clear white paper funnel to each bottle, plug with cotton-wool (see Conversation 53), or replace the stoppers, and for fifteen minutes gradually bring to 160° Fahr. On completion rapidly bring to the boiling point, and continue to boil for thirty minutes. This is for *partial* peptonization.

Complete peptonization may be conducted by carrying on the warming process for a longer period. Boiling kills the ferment. Complete peptonization makes the food bitter. When there is the *faintest* suspicion of bitter to the taste, partial peptonization has ocurred. Partial peptonization renders the curd much finer and more easy of digestion. If badly prepared it will disagree.

56. *Have you any remarks to make about the use of condensed milk?*

Condensed milk is about the most extensively used substitute for mother's milk, probably on account of its cheapness and because it is theoretically and often practically free from germs.

It does not turn quickly and is the most convenient to carry on a journey. However, it is generally accepted among the profession that condensed milk is not an ideal substitute for mother's milk, as it contains much less nutrient ingredients. Always prefer good cow's milk when it is obtainable.

During hot weather, or when you have no ice, condensed milk may be in order. The best brands are: Anglo-Swiss Condensed Milk, which contains about 50 per cent. of cane sugar; Borden's Eagle Brand and Borden's Evaporated Cream, which is simply pure milk condensed to the consistency of cream, thoroughly sterilized, and contains no antiseptic so as to insure protracted preservation.

The deficiency in fat in the preparations named may be made up, if necessary, by the addition of ordinary cream (sterilized 20 per cent.), a drachm, i. e., a teaspoonful to about every fluid ounce, i. e., a tablespoonful, of the milk.

As a rule you will find that children fed on condensed milk grow large, but do not possess much muscular vigor.

In some parts of the world, on the very fringes of civilization, where this book will reach, fresh cow's

milk cannot be obtained, and the only available substitute is condensed milk. Plain water, or barley water, or oatmeal water, in preference to plain water, can be used for dilution ; but whatever is selected should be *thoroughly boiled*—the later *when they have been prepared*—before mixing with the milk. An additional and perhaps advisable precaution would be to sterilize the mixture of milk and water rather than the latter only. The infant should be given a small quantity of lime juice, just sufficient to make it palatable in boiled water every day.

57. *Can you give me some information about dried milk foods?*

Dried milk foods are stated to be sterile, they are small in bulk, and their albuminoids are digested with greater ease. Mr. Cornelius Hanbury (Messrs. Allen and Hanbury) tells me that his preparations have traveled to India and back without deterioration. Messrs. Allen and Hanbury of London have two preparations.

No. 1. The "First Food for Infants," for the first three months, is prepared from cow's milk to imitate human milk. Six drachms of the powder by measure are added to six fluid ounces of water. Water that has been boiled should be used.

No. 2. The "Mother's Milk Food," for from three to seven months old, is prepared in the same way, but has, in addition to soluble starch derivatives and sugar, albuminoids and salts extracted from whole wheat meal and barley malt.

Chemical analyses have been published of these preparations. The quantity of proteids is eminently satisfactory, and in digestibility often exceeds peptonized cow's milk. Both preparations are somewhat deficient in the necessary quantity of fat in comparison with an average mother's milk. The salts in No. 2 are plentiful, and the preparations I have examined are free from starch. If modified cow's milk induces diarrhœa and

sickness, and there is much curd in the motions, then No. 1 or No. 2 can be tried according to the child's age.

Should they agree, the addition of fat may be found desirable and advisable in the proportion of *ordinary* sterilized cream (20 per cent. fat) 6 drachms to every 6 ounces of the fluid when prepared of either No. 1 or No. 2.

Among dried milk foods may be mentioned, Carnrick's Soluble Food, composed of partially peptonized powdered milk and wheat with the necessary amount of sugar. The starch has been converted into soluble starch and dextrine. Mellin's Food, a cereal food whose starch is converted into glucose. Nestle's food, condensed milk mixed with a cereal and its starch unchanged Imperial Granum, a food containing a correct percentage of albuminoids, but very low percentage of fat and sugar.

58. *What artificial food, then, would you recommend?*

In general terms it may be stated that *Sterilized Cream Food,* or Gaertner's Mother Milk, also sterilized, fulfil many of the requirements of the nursling up to ten or twelve months of age. It is most important to weigh the baby week by week. By taking this precaution its well-being can be very accurately determined. For the first three days there is a loss of weight which is regained by the second week, but if the loss has not been recovered by the third week its dietary will, most probably, require supervision. The average weight of the infant at birth is 7 lbs. 11 ozs. for boys, and 7 lbs. 4 ozs. for girls. During the first six months the child should gain four ounces a week. From the period of birth onwards the motions require supervision (see Conversation 116). Bowel disturbance in the shape of wind, stomach-ache, constipation, diarrhea, sickness, and so on, may be due to an excess of proteids. Numerous curds are passed in the motions, or they become dense and hardened and of pale color, or large cheese-like masses are vomited. These proteids may be reduced with advantage by further dilution, or a diluent

like barley water added with benefit. Bowel troubles due to excess of fat may be stopped by the reduction of the quantity of cream. It must not be forgotten that atmospheric and other conditions affect the infant's bowels quite independently of the feeding, and there must, therefore, be no *undue haste* to change the food on the very first appearance of indigestion, which may have nothing whatever to do with errors of diet.

There is no royal road to infant feeding, there is no one class of chemical recipes which will suit *all cases;* for the digestive powers of infants vary just as the digestive powers of adults, and what is one baby's meat often proves to be another's poison. Nature herself provides a variety of breast milks which are adapted to the constitutional peculiarities of the infant.

A mother's milk, which might be considered not at all a high-class one by the analytical chemist, may yet prove capable of rearing a strong and healthy child. Give the same infant a richer milk, and it will be ill. At one time the mother's milk is quite suitable for the infant, at another its composition from extraneous influences becomes so altered that it is the reverse.

How difficult, then, is the task of infant feeding when the basis is cow's milk, even when it has been artificially prepared to imitate the infant's natural food, as discovered by taking the *average* composition of many mothers' milks in combination. The chemical errors which may be present in the composition of cow's milk from the unwelcome attentions of dishonest dealers, at the very threshold of the process, have to be reckoned with, and consequently only first-class firms, with a reputation to lose, should be dealt with. When the infant's digestive powers have been experimentally determined, and a milk compound, consisting of a certain proportion of fat, albuminoids and sugar, has been found which suits it, and on which it *thrives,* there should be no desire to discover some other kind of food on which

it *might do better,* or to change it because this friend or that friend are anxious that some particular food should be tried, on which *their children* did "uncommonly well."

The newly-born infant's powers of digestion may be so feeble that even Cream Mixture or Gaertner's Mother Milk disagree. It may then be necessary to provide a mixture of cream and whey (there is no curd-forming material in the whey), or peptonized milk or one part milk to four or five parts of sugar barley water. The cream and whey mixture is made as follows: Ordinary cream one ounce, whey two ounces, water two ounces, a teaspoonful of sugar-of-milk; sterilize 100° Cent. or 212° Fahr. for thirty minutes. Whey is made by adding liquid essence of rennet (or a piece of rennet one inch square) or Fairchild's Essence of Pepsine to the fresh milk. Gently warm, or place in front of the fire until warm. When the milk is set break up the curd quite small, and when the curd has settled, which it will do in a few minutes, strain the whey through several folds of muslin, and finally squeeze the curd which has been caught by the filter, so as to extract all the moisture. A large number of infants reared on Cream Mixture or Gaertner's Mother Milk flourish exceedingly, but sometimes the growth of bone is slow and deficient, the teeth are late in appearing, and the skull bones become softened. If this is found to be the case, cereals should be added to the mixture (see Conversation 60). In all these matters consult your doctor. Where you have had one or more children to rear he has had many hundreds under his care, and has received a medical training, carrying with it the power to detect slight variations from health which you cannot. The benefit of skilled advice and experience in these matters is not to be lightly discarded in so difficult and responsible a study as infant feeding. As the infant grows older there may be a great fallacy

in relying upon the weight *alone*. There are children who become, often to their mothers' delight, abundantly fat. We often see pictures of *very fat* children, in the advertisement sheets of periodicals, in the attitude of pushing huge chairs or other Herculean feats, and yet they are not healthy. Their tissues are flabby, and they possess but little resisting power to battle against disease when it attacks them. They are examples of fat rickets, and fat has been developed at the expense of good flesh and bone. Your doctor's experienced eye will quickly detect this, whilst you, perhaps, are in a fool's paradise. Timely advice might save all this worry and disappointment. The child is father to the man, and you do not want to dwarf his stature by sowing the seeds of a rickety childhood. In some cases, usually when a year old or more, the bones may become so crooked or are so softened that splints may have to be worn, and when the bones have become set and hardened in their twisted shapes, usually from four to five years of age, a surgical operation may be found necessary to straighten them. Infants' feeding is a *very important* problem, so do not treat the matter lightly. Trifling indications of rickets, little projections on one or more of the ribs where the cartilage and bone joins, or some softening of the skull bones), are often found quite early, within three months of birth. This is the danger signal, and if you detect anything of this nature you should consult your doctor. The feeding may be radically wrong, the nourishment afforded insufficient, the hygienic environment faulty, or the baby may have some constitutional complaint. A stitch in time saves nine, and the disease should not be allowed to progress to the length I lately described, as may happen if it does not receive attention. The disease will not be sufficiently marked, as a rule, to attract your notice until the baby commences to crawl on the floor, but it is not wise to wait until then.

59. *How often should the infant be fed, and what quantities of food should be given?*

The quantity must be determined by the age, the weight, and the digestive powers of the infant. For the average infant, the following table will be found of great use.

The quantity within these specified limits will depend upon the constitutional peculiarities of the infant and on the previously mentioned factors, but the *maximum quantities* here advised should not be exceeded. The hours of feeding should be between 5 A.M. and 11 P.M., and *punctually observed;* indeed, if they are faithfully carried out, the child will often wake up crying at the regular times appointed for the meals.

All food should be given at the body temperature, and may be heated as required.

Age.	Intervals of Feeding.	No. of Feedings in 24 Hours.	Average Amount of Each Feeding.	Average Amount in 24 Hours.
1st week.	2 hours	10	1 oz.	10 ozs.
1st month.	2½ hours	8	2 to 3 ozs.	16 to 24 ozs.
2d month.	2½ hours	8	3 to 4 ozs.	20 to 30 ozs.
3d and 4th months.	3 hours	7	4 to 5 ozs.	30 to 35 ozs.
5th and 6th months.	3 hours	6	6 to 7 ozs.	35 to 40 ozs.

60. *When the baby is between seven months and twelve months old, how, and how often, should it be fed, and what should be the weekly gain in weight.*

If the infant is THRIVING on Cream Mixture or Gaertner's Mother Milk, or other modification of sterilized cow's milk suited to its constitutional peculi-

arities, then this method of feeding should be continued until it is ten or twelve months old. A large number of babies increase in health and strength when so nurtured. With a certain proportion, however, the growth of the flesh, the bones, and the teeth is slow. It is in such cases as these that cereals will prove of great benefit, and must be administered before the time mentioned above. The digestive powers of the infant are now quite able to deal successfully with starchy foods, if not given in too great abundance. and turn them into dextrine and maltose, which are soluble starch compounds, and, unlike starch, are able to pass into the blood vessels of the digestive system. In order that the digestive fluids may the more successfully operate on the particles of starch, the granules must be thoroughly boiled, so that they swell up and burst, and thus allow the digestive fluids ready access to them. *Modified cow's milk* is still to be the staple article of diet, the infant taking from thirty-five to forty ounces of this in the twenty-four hours. It should be fed every three hours, the average amount at each feeding being eight ounces—viz., at 8 A.M., 11 A.M., 2 P.M., 5 P.M. and 11 P.M., and the food, when prepared, should be of the consistence of ordinary cream, and given milk-warm (98° Fahr.). The weekly gain in weight during the seventh, eighth, and ninth month should be three to three and a half ounces, and during the tenth, eleventh, and twelfth months from one and a half to two ounces.

The following recipes for the preparation of cereals to be mixed with cow's milk may be used with advantage :—

(1) Bake flour—biscuit flour—in a slow oven until it be of a light fawn color ; reduce by means of a rolling-pin to a fine powder, and then keep in a covered tin ready for use.

Take two parts of this and one part of Higgin's Scotch Oatmeal, mix, and of the mixture take two

tablespoonfuls. Mix these into a "cream" with the modified cow's milk in a clean basin. Boil a pint of the milk in an enameled saucepan, and then add this to the "cream," gradually stirring the while; return to the saucepan, and boil for twenty minutes, frequently stirring; take off the fire; gradually add the remainder of the milk to it; place the whole in the separate feeding bottles of the day's supply of the sterilizer, and heat to a temperature of 158° Fahr. for one hour.

(2) Instead of the flours mentioned under heading 1, take a similar quantity of Wheat flake or Cerealine.

(3) Take a sufficient quantity of the best whole barley and *well wash* the grains. Grind in a coffee mill to be kept for the purpose, and sieve the meal through a No. 60 or No. 80 sieve. Take two tablespoonfuls of the meal, mix it into a paste with modified cow's milk in a clean basin. Boil a pint of the milk in an enameled saucepan, and gradually pour it on the paste, stirring the while; replace in the saucepan; boil for twenty minutes, stirring all the time; take off the fire; add the remainder of the milk gradually to this; place in the separate bottles of the day's supply of the sterilizer, and heat to a temperature of 158° Fahr. for half an hour.

(4) For barley in No. 3 substitute maize or Indian corn, and carry out as directed.

(5) For barley in No. 3 substitute oats, and carry out as directed.

Nos. 2, 3, 4, and 5 are of more value as a food than No. 1.

If the food does not agree, the starch proving troublesome, add a teaspoonful of concentrated extract of malt called Diastol, to the whole food for the day, and warm for half an hour at 110° Fahr. At the end of this time rapidly raise to the boiling point, which *kills the ferment*,

and prevents its further action. Sterilize as before. If the food is treated in this way the Diastol will turn about a quarter of the starch into various soluble starch derivatives.

New milk, composed in due proportions of cream and of skim milk, and modified so as to resemble human milk —the very acme of perfection—is the only food *which of itself alone* will nourish, and warm, and fatten. It is, for a child, *par excellence,* the food of foods.

All farinaceous foods are, for a child, only supplemental to milk—new milk being, for the young, the staple food of all other kinds of foods whatever.

Bear in mind, *and let there be no mistake about it,* that farinaceous food, be it what it may, is *not* suitable for a child, until, indeed, he has passed six months of age. Until then, if he be a dry-nursed child, the best artificial food for him will be found by studying Conversation 52.

I have given you a well-tried infant's dietary to choose from, as it is sometimes difficult to fix on one that will suit; but, remember, if you find one of the above to agree, keep to it, as a babe requires a simplicity in food —a child a greater variety.

Great care and attention must be observed in the preparation of any of the above articles of diet. A babe's stomach is very delicate, and will revolt at either ill-made, or lumpy, or burnt food. Great care ought to be observed as to the cleanliness of the cooking utensils. The above directions require the strict supervision of the mother.

61. *Can you give me information about the composition of some of the various patent and other infant foods?* *

These "infant foods" may be divided into the following groups. They all of them are prepared from cereals, one or more (corn, oats, barley), and they con-

* From analyses by Leeds or the *Lancet*.

tain more or less fat, proteids, salts, starch, and its various soluble derivatives and sugar. Many of them are for mixing with cow's milk. In some instances the proportion of fat and proteids has been drawn attention to in comparison with an average human milk.

NAMES OF FOODS.	MOST PROMINENT FEATURES OF THEIR COMPOSITION.
Neave's, Ridge's, and Frame Food.	Starch (unaltered).
Savory and Moore, "Best Food for Infants;" Allen and Hanbury, "Malted Infants' Food."	Starch and soluble starch derivatives (partial conversion of the starch.)
Nestlé's Anglo-Swiss, American-Swiss, Franco-Swiss.	Starch, cane-sugar, and milk when *suitably* diluted. Fat and proteids small in quantity.
Carnrick	Starch, sugar, cow's milk, and an animal digestant. When suitably diluted, fat and proteids small in quantity.
Mellin	Sugar and soluble starch derivatives. When mixed with milk as directed, fat deficient, proteids more than advisable.
Benger's	Starch, sugar, soluble starch derivatives, and an animal digestant. When mixed with the cow's milk, insufficiency of fat.
Horlick's Malted Milk .	Dry powder. Human milk imitation. Soluble starch derivatives, and an animal digestant. When mixed with water, very deficient in fat.

Whatever artificial food is used ought to be given by means of a bottle—not only as it is a more natural way than any other of feeding a baby, as it causes him to suck as though he were drawing it from the mother's breasts, but as the act of sucking causes the salivary glands to press out their contents, which materially assist diges-

tion. Moreover, it seems *thus* to satisfy and comfort him more than if given otherwise.

When choosing a feeding bottle the following are the essentials, for *dirty feeding bottles are an abomination.* None with a tube are to be selected, and those with indented letters are to be discarded, and those supplied with small nipples, because they cannot be readily cleansed. Suitable bottles are those supplied with Soxhlet's and Arnold's and Seibert's sterilizing apparatuses, and the nipples are large and easily cleansed. They further ensure the personal feeding of the infant by the nurse, who can control the rate of supply, and do not permit the disgusting and lazy habit of putting the bottle in the cot with the child. *Immediately* after use, thoroughly wash and cleanse the bottle with a brush, and turn it upside down to drain, to avoid the entry of atmospheric impurities. The nipples, of which there should be a number, should be turned inside out, thoroughly cleansed on both surfaces, and then boiled. When their surfaces become worn they should be discarded. A boat-shaped bottle with an india-rubber nipple at the end is also suitable.

Let me again urge upon you the importance, if it be at all practicable, of keeping the child *entirely* to the breast for the first five or six months of his existence. Let me repeat there is no *real* substitute for a mother's milk ; there is no food so well adapted to his stomach ; there is no diet equal to it in developing muscle, in making bone, or in producing that beautiful plump rounded contour of the limbs ; there is nothing like a mother's milk *alone* in making a child contented and happy, in laying the foundation of a healthy constitution, in preparing the body for a long life, in giving him tone to resist disease, or in causing him to cut his teeth easily and well ; in short, *the mother's milk is the greatest temporal blessing an infant can possess.*

As a general rule, therefore, when the child and the mother are tolerably strong, he is better *without artificial* food until he has attained the age of seven months; then, it may be necessary to feed him with Sterilized Cream Food or Gaertner's Mother Milk (see Conversation 52) twice a day, so as gradually to prepare him to be weaned. The food mentioned in a foregoing Conversation may, when he is seven months old, be the best for him.

62. *When the mother is not able to suckle her infant herself, what ought to be done?*

It must first be ascertained, *beyond all doubt,* that a mother is not able to suckle her own child. Many delicate ladies do suckle their infants with advantage, not only to their offspring, but to themselves. "I will maintain," says Steele, "that the mother grows stronger by it, and will have her health better than she would have otherwise. She will find it the greatest cure, and preservative for the vapors [nervousness] and future miscarriages, much beyond any other remedy whatsoever. Her children will be like giants, whereas otherwise they are but living shadows, and like unripe fruit." Many mothers are never so well as when they are nursing. A hireling, let her be ever so well inclined, can never have the affection and unceasing assiduity of a mother, and, therefore, cannot perform the duties of suckling with equal advantage to the baby.

The number of children who die under five years of age * is enormous—many of them from the want of the mother's milk. There is a regular "parental baby-slaughter"—"a massacre of the innocents"—constantly going on, in consequence of infants being thus deprived of their proper nutriment and just dues! The mortality from this cause is frightful, chiefly occurring

* 37·4 per cent., the mortality affecting chiefly those twelve months of age and under.

among rich people, who are either too grand, or, from luxury, too delicate to perform such duties : poor married women, as a rule, nurse their own children, and, in consequence, reap their reward.

If it be ascertained, *past all doubt*, that a mother cannot suckle her child, then, if the circumstances of the parents will allow—and they ought to strain a point to accomplish it—a healthy wet-nurse should be procured, as the food which Nature has supplied is far, very far superior to any invented by art. Never bring up a baby, then, if you can possibly avoid it, on *artificial* food alone. Remember, as I proved in a former Conversation, there is in early infancy no *real* substitute for either a mother's or a wet-nurse's milk. It is impossible to imitate the admirable and subtle chemistry of nature. The law of nature is, that a baby, for the first few months of his existence, shall be brought up by the breast ; and Nature 's law cannot be broken with impunity. It will be imperatively necessary then—

"To give to Nature what is Nature's due."

Again, in case of a severe illness occurring during the first nine months of a child's life, what a comfort either the mother's or the wet-nurse's milk is to him ! it often determines whether he shall live or die. But if a wet-nurse cannot fill the place of a mother, then it will be necessary to resort to some one of the modifications of cow's milk already mentioned (see Conversation 52).

I wish, then, to call your special attention to the following facts, for they are facts : Farinaceous foods, *of all kinds*, before a child is seven months old, should only be given under medical advice ; they are during the early period of infant life fraught with danger when habitually used, and may bring on—which they frequently do—convulsions. A babe fed on farinaceous food alone would certainly die of starvation ; for, up to

six or seven months of age, infants have not the power of digesting farinaceous substances to any other than a most *trifling* extent.

In passing, allow me to urge you never to stuff a babe, never to overload his little stomach with food ; it is far more desirable to give him not enough, than to give him too much at a meal. Many a poor child has been, like a young bird, killed with stuffing. If a child be at the breast, and at the breast alone, there is not much fear of his taking too much, and if he does so he can be readily checked ; but if he be brought up on artificial food there is great fear of his overloading his stomach. Stuffing a child brings on vomiting and bowel complaints, and a host of other diseases which now it would be tedious to enumerate. Let me, then, urge you on no account to overload the stomach of a little child. Some infants are "food-bolters," and the feeding of them with bottles such as have been recommended prevents this bad fault.

There will, then, in many cases, be quite sufficient nourishment in the above. I have known some robust infants brought up on milk, and on milk alone, without a particle of farinaceous food, or of any other food, in any shape or form whatever. But if it should not agree with the child, or if there should not be sufficient nourishment in it, then the food recommended in answer to No. 60 Question ought to be given.

Let it be thoroughly understood, that a babe, during the first twelve months and more of his life, MUST have, for his very existence, milk of some kind as the staple and principal article of his diet.

63. *How would you choose a wet-nurse ?*

I would inquire particularly into the state of her health ; whether she be of a healthy family or of a consumptive habit, or if she or any of her family have any seams or swellings about their necks ; any eruptions or blotches upon her skin ; if she has a plentiful breast of

milk of good quality* (which may readily be ascertained by milking a little into a glass); if she has good nipples, sufficiently long for the baby to hold, and that they be not sore; and if her own child be of the same, or nearly of the same age, as the one you wish her to nurse. Ascertain whether she menstruates during suckling; if she does, the milk is sometimes not so good and nourishing, and you had better decline taking her if you can procure somebody equally suitable. She is undesirable if she be pregnant. Assure yourself that her own baby is strong and healthy and free from a sore mouth, and from a "breaking-out," of the skin. Indeed, if it be possible to procure such a wet-nurse, she ought to be from the country, of ruddy complexion, of clear skin, and of between twenty and thirty years of age, as the milk will then be fresh, pure, and nourishing.

I consider it to be desirable that the infant of the wet-nurse should not be less than one month old, and it would be better that the nurse's milk should correspond in age with the infant to be nursed, as the milk varies in quality according to the age of the child; but this is *not absolutely* essential, and two or three months difference will not be of vital importance. For instance, during the commencement of suckling, the first milk is yellowish in color, it is rich in proteids and salts, the fat may be much or little, and it is deficient in sugar for the first day or two. It contains mulberry-like cells with fat in them. This is the *colostrum* milk, and the cells are the colostrum corpuscles. When the milk loses its yellow color the colostrum corpuscles have disappeared. The milk is similar to the biestings of a cow, which, if given to a babe of a few months old, would cause derangement of the stomach and bowels. After the first few days (seven to ten) the appearance of the

* It should be thin, and of a bluish-white color, sweet to the taste, and when allowed to stand will throw up a considerable quantity of cream.

milk changes; it becomes of a bluish-white color, gradually increases in quantity, and has a chemical constitution, mentioned in Conversation 50, as the infant becomes older and requires more support. The quantity of the fat remains fairly constant all through the period of nursing, the sugar gradually increases in amount, and the proteids and salts gradually decrease. The *solids*, composed of the fat, the sugar, the proteids, and the salts, suffer no diminution until the end of the seventh month, when the function begins to flag, from which time they steadily decrease. As the solids decrease, the water which dissolves them increases, so that there is really a total slight gain. If the baby is strong and vigorous it is better to select a woman with her first child, but if it is weak and puny then a woman who has borne several children, because her milk will not be so rich, and, therefore, so likely to upset the infant's digestion.

In selecting a wet-nurse for a very small and feeble babe, you must carefully ascertain that the nipples of the wet-nurse are good and soft, and yet not very large. If they be very large, the child's mouth being very small, he may not be able to hold them. You must note, too, whether the milk flows readily from the nipple into the child's mouth; if it does not, he may not have strength to draw it, and he would soon die of starvation. The way of ascertaining whether the infant really draws the milk from the nipple, is by examining the mouth of the child *immediately* after his taking the breast, and seeing for yourself whether there be actually milk, or not in his mouth.

Very feeble new-born babes sometimes cannot take the bosom, be the nipples and the breasts ever so good, and even when nipple-shields and glass tubes have been tried. In such a case, cream and whey mixture (see Conversation 58) must be given in small quantities at a time—from two to four teaspoonfuls—but frequently;

if the child be awake, every hour or every half-hour, both night and day, until he be able to take the breast. If, then, a puny, feeble babe is only able to take but little at a time, and that little by teaspoonfuls, he must have little and often, in order that "many a little may make a mickle."

I have known many puny, delicate children who had not strength to hold the nipple in their mouths, but who could take crèam and whey (as above recommended), by teaspoonfuls only at a time, with steady perseverance, and giving it every half-hour or hour (according to the quantity swallowed), at length be able to take the breast, and eventually become strong and hearty children; but such cases require unwearied watching, perseverance, and care. Bear in mind, that the smaller the quantity of nourishment given at a time, the oftener must it be administered, as the babe must have a certain quantity of food to sustain life.

As a final *caution*, do not engage a wet-nurse unless she be first seen *and approved of by your medical attendant*. Many apparently healthy young women have sown disease broadcast unknowingly. Themselves victims, they have been the innocent propagators of terrible maladies. Indeed, now that *artificial feeding* has been so successfully investigated, were I to choose between it and a wet-nurse who had not been medically examined, I would *unhesitatingly* select the former as being the *safer* way to rear a child.

64. *What ought to be the diet either of a wet-nurse or of a mother who is suckling?*

It is common practice to cram a wet-nurse with food, and to give her strong ale to drink, to make good nourishment and plentiful milk! This practice is absurd. The mother or the wet-nurse, by using those means most conducive to her own health, will best advance the interest of her little charge.

A wet-nurse ought to live somewhat in the following

way: Let her for breakfast have tea, with bread and butter, and an egg. It is customary for a wet-nurse to make a hearty luncheon; of this I do not approve. If she feel either faint or low at eleven o'clock, let her have a tumbler of milk, with a piece of bread and butter or a biscuit. She ought not to dine later than half-past one or two o'clock; she should eat for dinner either mutton or beef, with mealy potatoes, or asparagus, or French beans, or sea-kale, or turnips, or broccoli, or cauliflower, and stale bread. Rich pastry, soups, gravies, high-seasoned dishes, salted meats, greens, cabbage, and sometimes fish, must one and all be carefully avoided; as they only tend to disorder the stomach, and thus to deteriorate the milk.

It is a common remark, that "a mother who is suckling may eat anything." I do not agree with this opinion. Can impure and improper food make pure and proper milk, or can impure and improper milk make good blood for an infant, and thus good health? You should know that many drugs pass into the breast milk through the system, which may prove harmful to or even poison the babe. Opium, arsenic, mercury, belladonna, and other chemical substances are all known to have this property, and death might occur from a mother's or wet-nurse's indiscretions. A dose of liquorice powder taken by the nurse may gripe the infant, and saline purgatives may not only affect the baby's bowels, but may *even stop the flow of the milk.* Porter may make the baby sick. A small daily quantity of alcohol may improve the fat in the milk if this is wanted, but if it is taken in quantity it will certainly act as a poison to the infant. Rich feeding *combined with insufficient exercise,* makes the milk richer in proteids, and so difficult of digestion that the baby's stomach is upset. A plain mixed diet, with a slight excess of fluids and meats beyond what has been customary, will be the best plan to follow.

The wet-nurse may take with her dinner half a pint of mild ale.* Tea should be taken at half-past five or six o'clock; supper at nine, which should consist either of a slice or two of cold meat, or of cheese if she prefer it, with half a pint of mild ale; occasionally a basin of milk gruel may with advantage be substituted, or cocoa made with milk. Hot and late suppers are prejudicial to the mother or to the wet-nurse, and consequently to the child. The wet-nurse ought to be in bed every night by ten o'clock.

It might be said that I have been too minute and particular in my rules for a wet-nurse; but when it is considered of what importance good milk is to the well-doing of an infant, in making him strong and robust, not only now but as he grows up to manhood, I shall, I trust, be excused for my prolixity.

65. *Have you any more hints to offer with regard to the management of a wet-nurse?*

A wet-nurse is frequently allowed to remain in bed until a late hour in the morning, and during the day to continue in the house, as if she were a fixture! How is it possible that any one, under such treatment, can continue healthy? A wet-nurse ought to rise early, and, if the weather and season permit, take a walk, which will give her an appetite for breakfast, and will make a good meal for her little charge. This cannot during the winter months be done; but even then, she ought, some part of the day, to take every opportunity of walking out; indeed, in the summer time she should live half the day in the open air.

She ought strictly to avoid crowded rooms; her mind should be kept calm and unruffled, as nothing disorders the milk so much as passion, and other violent emotions of the mind; a fretful temper is very injurious, on

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*A healthy nurse, unused to alcohol, with a good milk supply, does not require any stimulant.

which account you should, in choosing your wet-nurse, endeavor to procure one of a mild, calm, and placid disposition.*

A wet-nurse should not be allowed to visit her own infant, as her foster-child may suffer ; but while this is the case, it is the *manifest duty* of the mother whose child she is nursing to see that the infant is properly looked after. If the nurse is fretting about the well-being of her own child she will not produce a nourishing milk for her charge, and the little one will suffer in consequence.

A wet-nurse ought never to be allowed to dose her little charge with medicine of any kind whatever. Let her thoroughly understand this, and let there be no mistake in the matter. Do not for one moment allow your children's health to be tampered or trifled with. A baby's health is too precious to be experimented upon and to be ruined by an ignorant person. Wet-nurses have been known to give their little charges opium to keep them quiet.

66. *Have the goodness to state at what age a child ought to be weaned.*

The time is often settled for you without your consent, for the breasts begin to fail at very variable periods during nursing. The supply begins to diminish and then ceases, or stops abruptly.

If the supply of milk continues, and the infant is thriving, it may be nursed until the end of the first

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* " ' The child is poisoned.'

' Poisoned ! by whom ?

' By you. You have been fretting.'

' Nay, indeed, mother. How can I help fretting ?'

' Don't tell me, Margaret. A nursing mother has no business to fret. She must turn her mind away from her grief to the comfort that lies in her lap. Know you not that the child pines if the mother vexes herself ?' "—*The Cloister and the Hearth*, by Charles Reade.

year, but NOT LONGER. After this period, the mother's milk is unsuitable for the infant's needs. Children who are nursed beyond that period, even if they have had no other food than the breast, are mostly rickety. If the failure of milk is partial only, though good in quality, then artificial feeding may be continued with breast milk. In the preparation of the artificial food, the knowledge of the chemical composition of the mother's milk would be extremely useful. Quite apart from the condition of supply, the question is a complicated one, and depends upon many factors—viz., the health of the mother, the quantity and quality of her milk supply, and the health and well-being of the infant. Each case must be decided on its own merits, but do not, even under apparently favorable conditions, prolong nursing beyond the year; it will not prevent conception, it will injure your own health, and may, if you be so predisposed, excite disease, and *do the baby harm.*

67. *How would you recommend a mother to act when she weans her child?*

She ought, as the word signifies, to do it gradually—that is to say, she should, by degrees, give him less and less of the breast, and more and more of artificial food; and lastly, it would be well for the mother either to send him away, or to leave him at home, and, for a few days, to go away herself. The weaning process should extend over a period of one month. There are also several important points to remember. Do not choose a time when a tooth is being cut; avoid, if possible, the very hot season of the year for fear of diarrhea; and postpone the weaning if the baby has just recovered from a serious illness.

68. *While a mother is weaning her infant, and after she has weaned him, what ought to be his diet?*

That depends upon the age of the infant. If he is seven months old, use pure Cream Mixture, or

Gaertner's Mother Milk, or other milk mixture which has been devised from a knowledge of the composition of the mother's milk. If he continues to thrive, feed him with this until he is one year old. If you have faithfully carried out the directions for preparing the food, and for feeding, with the result that the food is perfectly digested, and yet he does not thrive as he should, then it will be advisable to add some cereal to the milk (see Conversation 60). If circumstances have compelled weaning prior to the advent of the seventh month, then the infant must be fed according to the methods previously recommended (see Conversations 52 and 58).

69. *If a child be suffering severely from "wind," is there any objection to the addition of a small quantity either of gin or of peppermint to his food, to disperse it?*

It is a murderous practice to add either gin or peppermint of the shops (which is oil of peppermint dissolved in spirits) to his food. Many children have, by such a practice, been made puny and delicate, and have gradually dropped into an untimely grave. An infant, who is kept, for the first five or six months, *entirely* to the breast, with a mother careful in her own diet, seldom suffers from "wind"; those, on the contrary, who have much or improper food,* suffer severely.

Care in feeding, then, is the grand preventive of "wind"; but if, notwithstanding all your precautions, the child be troubled with flatulence, the remedies recommended under the head of "Flatulence" will generally answer the purpose.

70. *Have you any remarks to make on sugar for sweetening a baby's food?*

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* For the first five or six months never, if you can possibly avoid it, give artificial food to an infant who is sucking. There is nothing, in the generality of cases, that agrees, for the first few months, like the mother's milk *alone*.

A *small* quantity of sugar in an infant's food is requisite, sugar being nourishing and fattening, and making cow's milk to resemble somewhat in its properties human milk; but, bear in mind, *it must be used as directed.* In preceding Conversations milk-sugar has been ordered for admixture with cow's milk, this variety of sugar being found in both human and cow's milk. Milk-sugar is not so sweet as cane-sugar. If the proper percentage of cane-sugar is substituted for milk-sugar there is no harm in using it, but *much* sugar cloys the stomach, weakens the digestion, produces acidity, sour belchings, and wind—

"Things sweet to taste, prove in digestion sour."
Shakspeare.

VACCINATION AND RE-VACCINATION.

71. *Are you an advocate of vaccination?*

Certainly. I consider it to be one of the greatest blessings ever conferred upon mankind. Small-pox, before vaccination was adopted, ravaged the country like a plague, and carried off thousands annually; and those who did escape with their lives were frequently made loathsome and disgusting objects by it.

Vaccination is one, and an important, cause of increasing population; small-pox in olden times decimated the country.

72. *But vaccination does not always protect a child from small-pox?*

I grant you that it does not *always* protect him, but when he is vaccinated, if he takes the infection, he is seldom pitted, and very rarely dies, and the disease assumes a comparatively mild form. There are a few, very few, fatal cases recorded after vaccination, and these may be considered as only exceptions to the general rule. Possibly, some of these may be traced to the fact that, when the child was vaccinated, the proper effect was not produced. Small-pox is almost certain

death to an unvaccinated infant under one year of age, and more than half the unvaccinated children under five years of age are killed by it.

If children and adults were *re-vaccinated,* say every seven years after the first vaccination, depend upon it, even these rare cases would not occur, and in a short time small-pox would be known only by name.

73. *Do you consider it, then, the imperative duty of a mother, in every case, to have, after the lapse of every seven years, her children re-vaccinated?*

I decidedly do. It would be an excellent plan for *every* person, once every seven years, to be re-vaccinated, and even oftener, if small-pox be rife in the neighborhood. Vaccination, however frequently performed, can never do the slightest harm, and might do inestimable good. Small-pox is both a pest and a disgrace, and ought to be constantly fought and battled with, until it be banished (which it may readily be) from the land.

I say that small-pox is a pest; it is worse than the plague, for if not kept in subjection, it is more general, sparing neither young nor old, rich nor poor, and commits greater ravages than the plague ever did. Small-pox is a disgrace; it is a disgrace to any civilized land, as there is no necessity for its presence. If cow-pox were properly and frequently performed, small-pox would be unknown. Cow-pox is a weapon to conquer small-pox and to drive it ignominiously from the field.

My firm belief is, that if *every* person were, *every seven years,* duly and properly vaccinated, small-pox might be utterly exterminated; but as long as there are such lax notions on the subject, and such gross negligence, the disease will always be rampant, for the poison of small-pox never slumbers nor sleeps, but requires the utmost diligence to eradicate it. The great Dr. Jenner, the discoverer of cow-pox as a preventive of small-pox, strongly advocated the absolute necessity of *every* person being re-vaccinated once every seven

years, or even oftener, if there was an epidemic of small-pox in the neighborhood.

74. *Are you not likely to catch not only the cow-pox, but any other disease that the child has from whom the matter is taken?*

Yes, and it is for this reason that the matter is no longer taken from other children, but from the calf only.

75. *Do you advise taking the virus from another child?*

No, certainly not. Until about the year 1870 human virus, i. e., lymph taken from another child was almost exclusively used. Since that time, however, owing to increased popular demand, numerous and reliable establishments have made it a business to furnish physicians all over the country with pure, recent bovine virus obtained from carefully examined kine. In this manner the objection brought forward by antivaccinationists—the inoculation of certain "blood-diseases" from one child to another—has been successfully met.

76. *At what age do you recommend an infant to be first vaccinated?*

When he is from two to three months old, as the sooner he is protected the better. Moreover, the older he is the greater will be the difficulty in making him submit to the operation, and in preventing his arm from being rubbed, thus endangering the breaking of the vesicles, and thereby interfering with its effects. If small-pox be prevalent in the neighborhood, he may, with perfect safety, be vaccinated at the end of the month. If the small-pox be near at hand, he *must* be vaccinated, regardless of his age and of everything else. If a new-born babe should unfortunately catch the disease, he will most likely die, as at his tender age he would not have strength to battle with such a formidable enemy. A case, in the General Lying-in Hospital, Lambeth, of small-pox occurred in a woman a few days

after her admission and the birth of her child. Her own child was vaccinated when only four days old, and all the other infants in the house varying from one day to a fortnight or more. All took the vaccination, also the woman's own child, who was suckled and slept with her mother, and all escaped the small-pox.

77. *Do you consider that the taking of matter from a child's arm weakens the effect of vaccination on the system ?*

Certainly not, provided it has taken effect in more than one place. The arm is frequently much inflamed, and vaccinating other children from it abates the inflammation, and thus affords relief. *It is always well to leave one vesicle undisturbed.*

78. *If the infant have any "breaking-out" upon the skin, ought that to be a reason for deferring the vaccination ?*

Children who are in a bad state of health or who are suffering from some constitutional disease should not be vaccinated until they have recovered. If erysipelas is in the house or prevalent in the neighborhood, the operation should also be postponed until such time as it is safe to perform it. An infant suffering from eczema had better not be vaccinated, but the moment the skin be free from the breaking-out he must be vaccinated. A trifling skin affection, like red-gum, unless it be severe, ought not, at the proper age, to prevent vaccination. If small-pox be rife in the neighborhood, the child *must* be vaccinated regardless of *any* "breaking-out" on the skin.

79. *Does vaccination make a child poorly ?*

At about the fifth day after vaccination, and for three or four days, he is generally a little feverish ; the mouth is slightly hot, and he delights to have the nipple in his mouth. He does not rest so well at night ; he is rather cross and irritable ; and sometimes has a slight bowel complaint. The arm, about the ninth or tenth day, is

usually much inflamed, that is to say, it is red, hot, and swollen for an inch or more around the vesicles ; and it continues in this state for a day or two, at the end of which time the inflammation gradually subsides. These slight symptoms are desirable, as it proves that the vaccination has had a proper effect on his system, and that, consequently, he is more likely to be thoroughly protected from any risk of catching small-pox.

80. *Do you approve, either during or after vaccination, of giving medicine, more especially if he be a little feverish ?*

I do not like to interfere with vaccination *in any way whatever,* but to allow the pox to have full power upon his constitution.

What do you give the medicine for ? If the matter that is put into the arm be healthy, what need is there of physic ? And if the matter be not of good quality, I am quite sure that no physic will make it so ! Look, therefore, at the case in whatever way you like, physic after vaccination is *not* necessary. If the vaccination produce a slight feverish attack, it will, without the administration of a particle of medicine, subside in two or three days.

81. *Have you any directions to give respecting the arm* AFTER *vaccination ?*

The only precaution necessary is to take care that the arm be not rubbed ; otherwise the vesicles may be prematurely broken, and the efficacy of the vaccination may be lessened. The sleeve, in vaccination, ought to be large and soft, and should not be tied up. The tying up of a sleeve makes it hard, and it is much more likely to rub the vesicles than if it were put on the usual way.

82. *But I am told that vaccination sometimes makes the glands swell, and brings on eruptions of the skin, Is that so ?*

Certainly, in a very small proportion of the cases that's

the case. The glands in the arm-pit and in the neck may swell and become hard for a little while—quite exceptionally a little matter may form in them.

Sometimes nettle-rash comes on about the time of ripening of the vesicles, or a rose-rash, lasting for about a day, or fugitive red blushes make their appearance, or red-gum is seen. When matter has formed in the vesicles this may become inoculated in the healthy surrounding skin, or elsewhere induce small pimples, containing matter ; and if there are several of these pimples with matter in them close together scabs will form on them. The last will certainly happen if the baby is not prevented from rubbing the matter into his tender skin with his finger nails. The former are due to the slight constitutional disturbance, and will pass away before long. After all, these affections are but trivial in comparison with small-pox, they need cause no alarm, and the slight discomforts they entail are well repaid by the protection afforded against a loathsome disease.

83. *If the arm* AFTER *vaccination be much inflamed, what ought to be done ?*

Smear frequently, by means of a feather or a camel's hair brush, a little Boracic Ointment on the inflamed part. This simple remedy will afford great comfort and relief. If there is extensive redness and swelling of the arm Boracic Acid fomentations changed every hour will afford great relief.

84. *Have the goodness to describe the proper appearance, after the falling off of the scab, of the arm.*

The scabs ought always to be allowed to fall off of themselves. They must not, on any account, be meddled with or picked. With regard to the proper appearance of the arm, after the falling off of the scab—"A perfect vaccine scar should be of small size, circular, and marked with radiations and indentations,"—*Gregory.*

DENTITION.

85. *At what time does Dentition commence?*

The period at which it commences is uncertain. It may, as a rule, be said that a babe begins to cut his teeth at six or seven months old. Some have cut teeth at three months; indeed, there are instances on record of infants having been born with teeth. King Richard the Third is said to have been an example. Shakspeare notices it thus:—

"YORK.—Marry, they say my uncle grew so fast,
That he could gnaw a crust at two hours old;
'Twas full two years ere I could get a tooth.
Grandam, this would have been a biting jest."

When a babe is born with teeth they generally drop out. On the other hand, teething, in some children, does not commence until they are a year and a half, or two years old; in rare cases, not until they are three years old. There are cases recorded of adults who have never cut any teeth. An instance of the kind came under my own observation.

Dentition has been known to occur in old age. A case is recorded by M. Carre, in the *Gazette Mèdicale de Paris* (Sept. 15, 1860), of an old lady, aged eighty-five, who cut several teeth after attaining that age!

86. *What is the number of the* FIRST *set of teeth, and in what order do they generally appear?*

The first or temporary set consists of twenty teeth. The first set of teeth is usually cut in pairs. I may say that nearly invariably the order is—first, the lower front incisors (cutting teeth), then the upper front, then the *upper* two lateral incisors, and that not uncommonly a double tooth is cut before the two *lower* laterals; but at all events the lower laterals come seventh and eighth, and not fifth and sixth, as nearly all books on the subject testify. Then the first grinders, in the lower jaw, afterwards the first upper grinders, then the lower corner-pointed or canine teeth, after

which the upper corner or eye-teeth, then the second grinders in the lower jaw, and lastly, the second grinders of the upper jaw. They do not, of course, always appear in this rotation. Nothing is more uncertain than the order of teething. A child seldom cuts his second grinders until after he is two years old. *He is usually, from the time they first appear, two years in cutting his first set of teeth.* As a rule, therefore, a child of two years old has six teeth, and one of two years and a half old, twenty teeth.

87. *If an infant be either feverish or irritable or otherwise poorly, and if the gums be hot, swollen, and tender, are you an advocate for their being lanced?*

Certainly, if the gum over the tooth is red and swollen, and the *tooth can be felt.* By doing so he will, in the generality of instances, be almost instantly relieved. But if the redness is *general* rather than local, and if there is not one tender swollen spot with its oncoming tooth, lancing is not advocated. The inflamed mouth may have nothing whatever to do with the eruption of the teeth, *and be owing to dyspeptic troubles.*

88. *But it has been stated that lancing the gums hardens them.*

This is a mistake; it has a contrary effect. It is a well-known fact, that a part which has been divided gives way much more readily than one which has not been cut. Again, the tooth is bound down by a tight membrane, which, if not released by lancing, frequently brings on convulsions. If the symptoms be urgent, it may be necessary from time to time to repeat the lancing. It would be the height of folly to lance the gums unless they were hot and swollen, and unless the tooth, or the teeth, were near at hand. It is not to be considered a panacea for every baby's ills, although, in those cases where the lancing of the gums is indicated, the beneficial effect is sometimes almost magical.

89. *How ought the lancing of a child's gums to be performed?*

The proper person to lance his gums is a medical man. But if, perchance, you should be miles away, and be out of the reach of one, it would be well for you to know how the operation ought to be performed. Well, then let him lie on the nurse's lap upon his back, with his head held tight between her knees. Let the nurse take hold of the hands in order that the child may not interfere with the operation.

Then, *if it be the upper gum* that requires lancing, you ought to go to the head of the child, looking over, as it were, and into his mouth, and should steady the gum with the index finger of your left hand; then you should take hold of the gum-lancet with your right hand—holding it as if it were a table-knife at dinner—and cut firmly along the inflamed and swollen gum and down to the tooth, until the edge of the gum-lancet grates on the tooth. Each incision ought to extend along the ridge of the gum to about the extent of each expected tooth.

If it be the lower gum that requires lancing, you must go to the side of the child, and should steady the outside of the jaw with the fingers of the left hand, and the gum with the left thumb, and then you should perform the operation as before directed.

In lancing the *upper gums*, the incision should be made towards the *outer edge* of the expected tooth. In lancing the *lower gums*, the incision must be made towards the *inner edge* of the tooth. This is advised as the upper row of teeth generally overlaps the under set. If the grinders are being lanced the incision should take the form of a cross, one cut crossing another.

Although the lancing of the gums, to make it intelligible to a non-professional person, requires a long description, it is, in point of fact, a simple affair, is soon performed, and gives but little pain.

90. *If teething causes Convulsions, what ought to be done?*

Send immediately for a medical man. Meanwhile, freely dash water upon the face, and sponge the head with cold water, and as soon as warm water can be procured, put him into a warm bath* of 98° Fahr. If a thermometer be not at hand,† you must plunge your own elbow into the water; a comfortable heat for your elbow will be the proper heat for the infant. He must remain in the bath for a quarter of an hour, or until the fit be at an end. The body after coming out of the bath must be wiped with warm, dry, coarse towels; he ought then to be placed in a warm blanket. The gums must be lanced, and cold water should be applied to the head. Now administer an enema, composed of table salt, olive oil, and warm oatmeal gruel, in the proportion of one tablespoonful of salt, one of oil, and a teacupful of gruel, and repeat every quarter of an hour until the bowels have been well opened. As soon as he comes to himself, give a dose of aperient medicine.

A couple of grains of Calomel should be given, and followed in a quarter of an hour by five grains of Bromide of Potassium in a teaspoonful of sweetened water. Chloral is also a good remedy—two and a half grains for a dose—but it must be given under a doctor's supervision.

It may be well, for the comfort of a mother, to state that a child in convulsions is perfectly insensible to all pain whatever; indeed, a return to consciousness speedily puts convulsions to the rout.

At the time you send for your doctor state what is the matter, and that will give him the opportunity, espe-

* For the precautions to be used in putting a child into a warm bath, see the answer to question on "Warm Baths."

† No family, where there are young children, should be without Fahrenheit's thermometer.

cially if you are in a country district where help is a long way off, of bringing remedies for an emergency, and also some chloroform, which is an exceedingly good remedy for convulsions.

It is quite right for you to act as I have suggested in such an emergency, but remember, the convulsions may not be due to teething after all, and you must not lance the gum unless the indications are such as have been suggested in Conversation 87.

Convulsions due to the irritation of an oncoming tooth are *not common*. It is more than likely that the infant has some indigestible material in his stomach or bowels; he may have an inflamed ear (out of sight); he may be sickening for some fever! The strong and robust infant is not likely to suffer from convulsions—in fact, he will often cut his teeth without your being aware of it; but the rickety baby, with a readily irritated and very unstable brain, often the offspring of "nervous" parents, or those in a low state of health, is likely to be attacked by them. Convulsions indicate, then, a debilitated infant, as well as the presence of some irritant in the body inducing the emergency.

91. *A nurse is in the habit of giving a child who is teething either coral or ivory to bite. Do you approve of the plan?*

It is a bad practice to give him any hard, unyielding substance, as it tends to harden the gums, and, by so doing, causes the teeth to come through with greater difficulty. I have found softer substances, such as an indiarubber ring, or a piece of the best bridle leather, or a crust of bread, of great service. If a piece of crust be given as a gum-stick, he must, while biting it, be well watched, or by accident he might loosen a large piece of it, which might choke him. The pressure of any of these excites a more rapid absorption of the gum, and thus causes the tooth to come through more easily and quickly.

92. *Have you any objection to my baby, when he is cutting his teeth, sucking his thumb?*

Certainly not. The thumb is the best gum-stick in the world :—it is convenient ; it is handy in every sense of the word ; it is of the right size, and of the proper consistence, neither too hard nor too soft ; there is no danger, as of some artificial gum-sticks, of its being swallowed, and thus of its choking the child. The sucking of the thumb causes the salivary glands to pour out their contents, and thus not only to moisten the dry mouth, but assist the digestion ; the pressure of the thumb eases, while the teeth are "breeding," the pain and irritation of the gums, and helps, when the teeth are sufficiently advanced, to bring them through the gums. Sucking of the thumb will often make a cross infant contented and happy, and will frequently induce a restless babe to fall into a sweet refreshing sleep. Truly may the thumb be called a baby's comfort. By all means, then, let your child suck his thumb whenever he likes, and as long as he chooses to do so.

There is a charming, bewitching little picture of a babe sucking his thumb in Kingsley's *Water Babies.* which I heartily commend to your favorable notice and study.

93. *But if an infant be allowed to suck his thumb, will it not be likely to become a habit, and stick to him for years—until, indeed, he become a big boy?*

After he has cut the whole of his first set of teeth, that is to say, when he is about two years and a half old, he might, if it be likely to become a habit, be readily cured by the following method—namely, by making a paste of aloes and water, and smearing it upon his thumb. One or two dressings will suffice, as after just tasting the bitter aloes, he will take a disgust to his former enjoyment, and the habit will at once be broken.

Many persons I know have an objection to children sucking their thumbs, as for instance—

"Perhaps it's as well to keep children from plums,
And from pears in the season, and sucking their thumbs." *

My reply is—

"P'rhaps 'tis as well to keep children from pears;
The pain they might cause is oft followed by tears;
'Tis certainly well to keep them from plums;
But certainly not from sucking their thumbs!
If a babe suck his thumb
'Tis an ease to his gum;
A comfort; a boon; a calmer of grief;
A friend in his need—affording relief;
A solace; a good; a soother of pain;
A composer to sleep; a charm; and a gain;
'Tis handy, at once, to his sweet mouth to glide;
When done with, drops gently down by his side;
'Tis fixed, like an anchor, while the babe sleeps,
And the mother, with joy, her still vigil keeps."

94. *A child who is teething dribbles, and, thereby wets his chest, which frequently causes him to catch cold; what had better be done?*

Have in readiness to put on several *flannel* dribbling bibs, so that they may be changed as often as they become wet; or, if he dribble *very much*, the oiled silk dribbling-bibs, instead of the flannel ones, may be used. They are procurable at any baby-linen warehouse.

95. *Do you approve of giving a child, during teething, much fruit?*

No; unless it be a baked apple, or the juice of five or six grapes, taking care that he does not swallow either the seeds or the skin, or an orange. Such fruits, if the bowels be in a costive state, will be particularly useful.

All stone fruit, *raw* apples or pears, ought to be carefully avoided, as they only disorder the stomach and the bowels, causing convulsions, gripings, &c.

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* Ingoldsby Legends.

96. *Is a child during teething more subject to disease, and, if so, to what complaints, and in what manner may they be prevented?*

The tendency on the part of the mother and nurse is to cast the blame on teething for all the complaints to which the infant may be subject during the progress of dentition. It is a time-honored custom, and dies hard. This explanation of the cause of the various diseases is a very convenient one, and saves trouble, but it is not infrequently an explanation which proves disastrous to the infant. Whilst the teeth are being blamed, the old idea of the inadvisibility of interfering with Nature's efforts is quietly submitted to, and other and much more obnoxious causes for ill-health are either not detected or ignored.

Often at the period of teeth-cutting the dietary is being altered; in the natural course of events stomach and bowel troubles arise, and the teeth are blamed. The babe is teething—of course, he has diarrhea and sickness, and is feverish, though there is not a tooth in sight. The obvious explanation of an unsuitable diet is not for a moment thought of, and the teeth are freely abused. When bowel troubles arise inflammation of the mouth is not uncommon. Those wretched teeth again! although there is no sign of local swelling and the imminent appearance of a tooth. The latter, of course, is an effort of Nature to "get rid of bad humors"; you must not interfere with Nature's workings. Rubbish! The correct view to take of these complaints is to treat the inflammation of the mouth and the bowel disturbance, and *pay particular attention to the feeding.* To clasp the hands, pursue a masterly policy of inactivity, and blame the teeth, is not wise, especially when his mouth is sore and painful, and his bowels gripe him. But children often cut their teeth with a "bad cold," or bronchitis? Certainly, they often do. If the baby's clothes around his neck are allowed to be-

come wet from the saliva constantly dribbling on them, and his neck and chest become chilled, it is not unlikely that he will "catch a cold" or have bronchitis. There is another explanation for these attacks. When a tooth *is near the surface and the gum is swollen and sore*, there is irregular fever, often lasting for several days, the temperature varying between 100° and 104° Fahr. When in this feverish state the child's health is not so good as at other times, owing to the lowering effects of the fever on the system. His stomach and bowels are more irritable when he is feverish, and dyspeptic attacks are more readily induced. Sudden changes of temperature perhaps induce catarrh of his bowels and stomach, when they otherwise would not do so, or under these conditions he has a cold in his head or bronchitis. If he is cutting a tooth, do not send him out in an east or north-east wind, or leave him in a draughty place.

Discharges from the ear are not caused by teething; other influences have been at work. Probably he has caught cold in the ear whilst in a state of fever. Such discharges must not be looked upon as a "natural vent," but your doctor should be at once informed of the occurrence, and they should receive prompt attention, lest the face become paralyzed, or serious brain mischief occur. Both eczema and red-gum have been laid to the door of teething. Eczema is often worse during the eruption of a tooth; but both these skin complaints are due to bowel troubles in the first instance, and these bowel troubles have doubtless been due to some error in diet. Attacks of fever may be started by many other causes than teething; but where there is a hot and swollen gum and an oncoming tooth, the fever very probably proceeds from this cause. To ascribe all attacks of fever to some *supposed tooth disturbance*, when there is no sign of such disturbance on looking into the mouth, is rash. The fever may indicate some lung trouble—inflammation, for example—and much

valuable time has been lost from the too-ready explanation. Very few healthy infants suffer from convulsions; it is usually only the weak, debilitated, and often rickety children of "nervous" parentage that are attacked. The irritation of an oncoming tooth, with a hot and swollen gum, can, and does, in these infants, excite the nervous energy, the outward result being convulsions.

If the child is not cutting a tooth, and the cause of his distress is not obvious, do not ascribe his illness to "breeding" the teeth, for if you do you will neglect other most important matters. Bronchitis and diarrhea are not to be looked upon as an effort of Nature to "act as a diversion, by relieving the irritation of the gums," but are to be treated with proper respect, or the simple diarrhea may prove a very serious matter, and the trifling bronchitis a fatal disease.

To prevent these diseases, means ought to be used to invigorate a child's constitution by plain, wholesome food, as recommended under the Conversations concerning diet; by exercise and fresh air;* by allowing him, weather permitting, to be out of doors a great part of every day; by lancing the gums when they get red, hot, and swollen; by attention to the bowels; and, let me add, by attention to his temper: many children are made feverish and ill by petting and spoiling them.

97. *Have the goodness to describe the symptoms and the treatment of Painful Dentition.*

The gums are red, swollen, and hot, and he cannot,

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* The young of animals seldom suffer from cutting their teeth —and what is the reason? Because they live in the open air, and take plenty of exercise; while children are frequently cooped up in close rooms, and are not allowed the free use of their limbs The value of fresh air is well exemplified in a Registrar-General's Report. He says that in 1,000,000 deaths, from all diseases, 616 occur in the town from teething, while 120 only take place in the country from the same cause.

without expressing pain, bear to have them touched; hence, if he be at the breast, he is constantly loosing the nipple. There is dryness of the mouth, although before there had been a great flow of saliva. He is feverish, restless, and starts in his sleep. His face is flushed. His head is heavy and hot. The fever is irregular and the temperature ranges from 100° to 104° Fahr., and may be at its highest point, unlike in other diseases, in the morning. In association with these symptoms there may be—(1) sickness and diarrhea, one or both; (2) inflammation of the mouth, and not infrequently painful and swollen glands under the jaw and the upper part of the neck; (3) a "cold in the head" or bronchitis; (4) convulsions; (5) eczema or red-gum.

The treatment consists in lancing the swollen gum, which will ease the parts. The complications of painful dentition, should any be present, must be dealt with as recommended under the various Conversations dealing with these disorders.

If you are living in the town, and your baby suffers much from teething, take him into the country. It is wonderful what change of air to the country will often do, in relieving a child who is painfully cutting his teeth. The number of deaths in cities from teething is great; it is in the country comparatively trifling.

98. *If an infant be purged during teething or indeed during any other time, do you approve of either absorbent or astringent medicines to restrain it?*

Certainly not. I should look upon the relaxation as an effort of Nature to relieve itself. A child is never purged without a cause; that cause, in the generality of instances, is the presence of either some undigested food, or acidity, or depraved motions, that want a vent.

The better plan is, in such a case, to give a dose of aperient medicine, such as either Castor Oil, or Magnesia and Rhubarb; and thus work it off. IF WE LOCK

UP THE BOWELS WE CONFINE THE ENEMY, AND THUS PRODUCE MISCHIEF. If he be purged more than usual, attention should be paid to the diet—if it be absolutely necessary to give him artificial food—and care must be taken not to overload the stomach.

After the purge it is advisable to administer a mixture containing Chalk and Catechu to ward off any chances of choleraic diarrhea (Prescription I. in Appendix).

For sickness a teaspoonful of fresh Ipecacuanha Wine should be given every ten minutes until the stomach is cleared, to be followed by a mixture of Bismuth and Soda (Prescription II. in Appendix).

99. *A child is subject to a slight cough during dentition—called by nurses "tooth-cough": is there any objection to a mother giving her child a small quantity either of Syrup of White Poppies, or of Paregoric, to ease it?*

Paregoric and Syrup of White Poppies for a young child are dangerous medicines, unless administered by a judicious medical man, and *ought never to be given by a mother.* Wrap the child warmly, and give a mixture containing Ipecacuanha and Ammonia three times a day (Prescription III. in Appendix).

A slight cold on the chest may quickly pass on to a dangerous bronchitis or inflammation of the lungs, and early treatment is advisable to prevent the spread of inflammation.

100. *A child who is teething is subject to a "breaking-out," more especially behind the ears, which is most disfiguring, and frequently very annoying: what would you recommend?*

Have all breakings-out cured as quickly as possible. Skin eruptions used to be looked upon "as an effort of the constitution to relieve itself," and it was anticipated that "if the breaking-out was repelled that convulsions or bronchitis or inflammation of the lungs would be

the consequence." Increasing experience, however, has taught that such old-time fears were groundless, and that skin disorders may be cured with impunity, as also the facts that mouth, stomach and bowel complaints must not be allowed to run riot, or death will quickly step in, and that a neglected "cold on the chest," rather than acting as a safety-valve for dental irritation, as was once supposed, will spread if neglected, and bring both life and dental troubles to an end at one and the same time.

101. *Do you recommend "teething powders?"*

No. As it has been the custom of mothers and nurses for years to lay the blame to "teething," for well-nigh every ailment occurring during infancy, so various secret, magical cures, in the shape of "teething powders," have sprung up to aid the teething process, and ward off the ailments! Teething powders should *not* be given. They often contain dangerous drugs, such as Opium, Mercury, and Antipyrine, which should on no account be administered by any but a medical man. If the child is feverish there will be no harm in giving him Prescription IV. in Appendix,—a teaspoonful every two or three hours,—and sponging him with lukewarm water; but do not give any remedy of which you do not know the composition, unless it has been prescribed by your medical man.

102. *Are the teeth to be cleaned during infancy and childhood?*

Certainly. Do all you can to preserve them by using a soft toothbrush at least night and morning, but better after each meal, dipped in a wash, which is made by adding eight grains of table salt to one ounce of water. If the teeth are not cleaned the food collects about them, and germs readily grow in the material. Acid secretions are then produced, which eat into the enamel, and then quickly expose and destroy the sensitive tooth pulp, and so the life of the tooth. A dentist should

examine the child twice a year, to see if the teeth are sound. By preserving your child's teeth you preserve his health. Should the temporary teeth show signs of decay, he must be taken to the dentist *at once* to have them filled. Foul discharges in the mouth are prejudicial to its mucous membrane, to the teeth, and to the health of the child. Tubercle bacilli may find their way into the glands of the neck at the site of decayed teeth, the glands may form abscesses, and even worse may happen.

Temporary teeth should be "filled," for the following reasons: (1) Without teeth the child cannot masticate his food, and his health suffers in consequence. (2) Decayed teeth frequently infect the oncoming teeth, a very serious matter indeed. (3) They hinder the eruption of the permanent teeth.

Cleaning the teeth, then, is as important as washing the body. See to it that your child forms the habit of regularly washing his teeth, and a dirty mouth will then become as objectionable to him as a dirty skin.

EXERCISE.

103. *Do you recommend exercise in the open air for a baby? and if so, how soon after birth?*

I am a great advocate for his having exercise in the open air. "The infant in arms makes known its desire for fresh air by restlessness; it cries, for it cannot speak its wants; is taken abroad, and is quiet."

The age at which he ought to commence taking exercise will, of course, depend upon the season and upon the weather. If it be summer, and the weather be fine, he should be carried in the open air a week or a fortnight after birth; but if it be winter, he ought not, on any account, to be taken out under the month, and not even then, unless the weather be mild for the season, and it be the middle of the day. At the end of two months he should breathe the open air more frequently.

And, after the expiration of three months, he ought to be carried out *every day*, even if it be wet under foot, provided it be fine above, and the wind be neither in an easterly nor in a northeasterly direction. By doing so, we shall make him robust, and give the skin that mottled appearance which is so characteristic of health. He must, of course, be well clothed.

I cannot help expressing my disapprobation of the practise of smothering up an infant's face with a handkerchief, with a veil, or with any other covering, when he is taken out into the air. If his face be so muffled up, he may as well remain at home; as, under such circumstances, it is impossible for him to receive any benefit from the invigorating effects of the fresh air.

104. *Can you devise any method to induce a babe himself to take exercise?*

He must be encouraged to use muscular exertion; and, for this purpose, he ought to be frequently laid upon a rug, or carpet, on the floor: he will then stretch his limbs and kick about with perfect glee. It is a pretty sight to see a little fellow kicking and sprawling on the floor. He crows with delight, and thoroughly enjoys himself; it strengthens his back; it enables him to stretch his limbs, and to use his muscles. It is one of the best kinds of exercise a very young child can take. While going through his performances, his diaper, if he wear one, should be unfastened, that he may go through his exercises untrammeled. By adopting the above plan, the babe quietly enjoys himself, his brain is not over-excited by it: this is an important consideration, for both mothers and nurses are apt to rouse and excite very young children to their manifest detriment. A babe requires rest, and not excitement. How wrong it is, then, for either a mother or a nurse to be exciting and rousing a new-born babe. It is most injurious and weakening to his brain. In the early

period of his existence, his time ought to be almost entirely spent in sleeping and in sucking !

105. *Do you approve of tossing an infant much about ?*

I have seen a child tossed nearly to the ceiling ! Can anything be more cruel or absurd ? Violent tossing of a young babe ought never to be allowed : it only frightens him, and has been known to bring on convulsions. He should be gently moved up and down, *not* tossed. Such exercise causes a proper circulation of the blood, promotes digestion, and induces sleep. He must always be kept quiet immediately after taking the breast. If he be tossed *directly* afterwards, it interferes with his digestion, and is likely to produce sickness.

SLEEP.

106. *Ought the infant's sleeping apartment to be kept warm ?*

The lying-in room is generally kept *too* warm, its heat being, in many instances, more that of an oven than of a room. Such a place is most unhealthy, and is fraught with danger both to the mother and the baby. We are not, of course, to run into an opposite extreme, but are to keep the chamber at a moderate and comfortable temperature. The top window sash ought frequently to be let down, in order the more effectually to change the air and thus to make it more pure and sweet.

A new-born babe ought to be kept comfortably warm, but not very warm. It is folly in the extreme to attempt to harden a very young child either by allowing him, in the winter time, to be in a bedroom without a fire, or by dipping him in *cold* water, or by keeping him with scant clothing on his bed. The temperature of a bedroom, in the winter time, should be, as nearly as possible, at 60° Fahr. Although the room should be comfortably warm, it ought from time to time to be properly ventilated. An unventilated room soon becomes foul, therefore unhealthy. How many in this world, both

children and adults, are "poisoned with their own breaths!"

107. *Ought a babe to lie alone from the first?*

There is a difference of opinion on this point. Some authorities would say that the child should *not* lie alone; others would say it *should* do so. The arguments for the former are that the child requires the warmth of another person's body; that it is easier to suckle with the child close at hand. Against these, it is said, must be placed the known bad effects of a child breathing close to a grown-up person, and the danger of "overlaying," besides the tax on the mother or nurse not to disturb the child by any personal movements. I would strongly advise you to make your babe lie alone in his bassinette at the side of your own bed. Any warmth he may need, other than that of his blanket, &c., may be supplemented by an india-rubber hot-water bottle. The danger of suffocation, by the child being smothered or squeezed by whoever is sleeping with him, is removed. The child breathes purer air when alone. The mortality from "overlaying" is such a crying evil among the poor, that its frequency begets the terrible thought that in many, many instances, it is not an accident, but a premeditated act. The accident can happen easily. I have shown you how to avoid it.

108. *Do you approve of rocking an infant to sleep?*

I do not. If the rules of health be observed, he will sleep both soundly and sweetly without rocking. The rocking might cause him to fall into a feverish, disturbed slumber, but not into a refreshing, calm sleep. Besides, if you once take to that habit, he will not go to sleep without it.

109. *Then don't you approve of a rocking-chair, and of rockers to the cradle?*

Certainly not. A rocking-chair, or rockers to the cradle, may be useful to a lazy nurse or mother, and may induce a child to sleep, but that restlessly, when

he does not need sleep, or when he is wet and uncomfortable, and requires clean clothes. It will not cause him to have that sweet, and gentle, and exquisite slumber so characteristic of a baby who has no artificial appliances to make him sleep. No! rockers are perfectly unnecessary, and the sooner they are banished from the nursery the better will it be for the infant community. I do not know a more wearisome and monotonous sound than the everlasting rockings to and fro in some nurseries. They are often accompanied by a dolorous lullaby from the nurse, which adds much to the misery and depressing influence of the performance.

110. *While the infant is asleep, do you advise the head of the crib to be covered with a handkerchief, to shade his eyes from the light; and, if it be summer-time, to keep off the flies?*

If the head of the crib be covered the babe cannot breathe freely; the air within the crib becomes contaminated, and thus the lungs cannot properly perform their functions. If his sleep is to be refreshing, he must breathe pure air. I do not even approve of a head to a crib. A child is frequently allowed to sleep on a bed with the curtains drawn completely closed as though it were dangerous for a breath of air to blow upon him!* This practice is most injurious. An infant must have the full benefit of the air of the room; indeed, the top window sash ought to be frequently let down, so that the air of the apartment may be changed; taking care, of course, not to expose him to a draught. If the flies, while he is asleep, annoy him, let a *net* veil be thrown over his face. He can readily breathe through net, but not through a handkerchief.

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*I have somewhere read that, if a cage containing a canary be suspended at night within a bed where a person is sleeping, and the curtains be drawn closely around, the bird will in the morning, in all probability, be found dead!

111. *Have you any suggestions to offer as to the way a babe should be dressed when he is put down to sleep?*

Whenever he be put down to sleep be more than usually particular that his dress be loose in every part; be careful that there be neither strings nor bands to cramp him. Let him, then, during repose be more than ordinarily free and unrestrained—

> "If, whilst in cradled rest your infant sleeps,
> Your watchful eye unceasing vigil keeps,
> Lest cramping bonds his pliant limbs constrain,
> And cause defects that manhood may retain."

112. *Is it a good sign for a young child to sleep much?*

A babe who sleeps a great deal thrives much more than one who does not. I have known many children who were born * small and delicate, but who slept the greatest part of their time, become strong and healthy. On the other hand, I have known those who were born

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* It may be interesting to a mother to know the average weight of new-born infants. There is a paper on the subject in the *Medical Circular*, and which has been abridged in *Braithwaite's Retrospect of Medicine*. The following are extracts: "Dr. E. von Siebold presents a table of the weights of 3,000 infants (1,586 male and 1,414 female), weighed immediately after birth. From this table (for which we have not space) it results that by far the greater number of the children, 2,215, weighed between 6 and 8 lbs. From 5¾ to 6 lbs., the number rose from 99 to 268; and from 8 to 8¼ lbs., they fell from 226 to 67 and never rose again, at any weight, to 100. From 8¾ to 9½ lbs. they sank from 61 to 8, rising, however, at 9½ lbs. to 21. Only six weighed 10 lbs., one 10¾ lbs., and two 11 lbs. The author has never but once met with a child weighing 11¾ lbs. The most frequent weight in the 3,000 was 7 lbs.. numbering 426. It is a remarkable fact that until the weight of 7 lbs. the female infants exceeded the males in number, the latter thenceforward predominating. . . . From these statements, and those of various other authors here quoted, the conclusion may be drawn that the normal weight of a mature new-born infant is not less than 6 nor more than 8 lbs., the average weight being 6½ or 7 lbs., the smaller number referring to female and the higher to male infants."

large and strong, yet who slept but little, become weak and unhealthy.

The common practice of a nurse allowing a baby to sleep upon her lap is a bad one, and ought never to be countenanced. He sleeps cooler, more comfortably and soundly, in his crib.

The younger an infant is the more he generally sleeps, so that during the early months he is seldom awake, and then only to take the breast.

113. *How is it that much sleep causes a young child to thrive so well?*

If there be pain in any part of the body, or if any of the functions be not properly performed, he sleeps but little. On the contrary, if there be exemption from pain, and if there be a due performance of all the functions, he sleeps a great deal; and thus the body becomes refreshed and invigorated.

114. *As much sleep is of such advantage, if an infant sleep but little, would you advice* COMPOSING MEDICINE *to be given to him?*

Certainly not. The practice of giving *composing medicine* to a young child *cannot be too strongly reprobated.* If he does not sleep enough, the mother ought to ascertain if the bowels be in proper state, if they be sufficiently opened, that the motions be of a good color, namely, a bright yellow, inclining to orange color, and free from slime or from bad smell.

Slight febrile attacks, "colds" in the head or chest, or mouth or throat troubles, or irritating skin disorders, or other and more serious diseases, will all tend to make him restless and sleepless. Attention to the clothing is very important. Soiled diapers and clothing changed with insufficient frequency will induce sleeplessness. A change of clothing and a warm bath will, under these circumstances, quickly promote quiet slumber, and this more particularly applies to cases where there is slight fever, for clothes rendered sticky by perspiration are a

source of irritation and discomfort to the baby. Try and discover the cause of the sleeplessness, and the appropriate remedy will be the more readily selected.

115. *We often hear of coroners' inquests upon infants who have been found dead in bed—accidentally overlaid; what is usually the cause?*

Suffocation, produced either by ignorance, or by carelessness. From *ignorance* in mothers, in their not knowing the common laws of life, and the vital importance of free and unrestricted respiration, not only when babies are up and about, but when they are in bed and asleep. From *carelessness*, in their allowing young and thoughtless servants to have the charge of infants at night. Young girls are usually heavy sleepers, and are thus too much overpowered with sleep to attend to their necessary duties.

A foolish mother sometimes goes to sleep while allowing her child to continue sucking. The unconscious babe, after a time, loses the nipple, and buries his head in the bed-clothes. She awakes in the morning finding, to her horror, a corpse by her side, with his nose flattened, and a frothy fluid, tinged with blood, exuding from his lips! A mother ought, therefore, never to sleep until her child has finished sucking, and been returned to his crib.

THE BLADDER AND THE BOWELS OF AN INFANT.

116. *Have you any hints to offer respecting the bowels and the bladder of an infant?*

A mother ought daily to satisfy herself as to the state of the bladder and the bowels of her child. She herself should inspect the motions, and see that they are of a proper color, bright yellow, inclining to orange; and consistence, that of thick gruel. That they are not slimy, curdled, or green; if they should be any one of these, it is a proof that she herself has, in all probability, been imprudent in her diet, and that it will be

necessary for the future that she be more careful both in what she eats and in what she drinks. For the first two months there should be three or four motions daily, afterwards only two, and in the third year only one. During the first two or three days the meconium is passed. This is a greenish, sticky material, possessing but little smell. Within the first two years the motions become brownish-yellow, and of the consistence of porridge, and at the end of that period they have the adult characteristics.

She ought, moreover, to satisfy herself that the urine does not smell strongly, that it does not stain the diapers, and that a sufficient quantity is passed. The quantity can only be roughly gauged by the amount of wetting of the diapers. During the first month from $5\frac{1}{4}$ to $10\frac{1}{2}$ ozs. are passed daily, and during the first year from 14 to $17\frac{1}{2}$ ozs. During the second year the quantity varies from $17\frac{1}{2}$ to 21 ozs., and in the fourth year the latter quantity has just doubled. The urine is a clear fluid with just a tinge of yellow in its color —it is sometimes greenish—being paler in the breast-fed infants than bottle-fed babies. After weaning it heightens in color, and develops a urinous smell. If the urine passed does not answer to these characteristics the doctor's attention should be called to the fact.

A frequent cause of a child crying is, he is wet and uncomfortable, and wants drying and changing, and the only way he has of informing his mother of the fact is by crying lustily, and thus telling her, in most expressive language, of her thoughtlessness and carelessness.

Should the infant suffer from a sudden attack of pain, as revealed by his crying and drawing his legs and thighs up, the spasms extending over a period of twenty-four or thirty-six hours, with or without fever, *with tenderness in the loin,* and without bowel-troubles, he possibly is passing grit or a small stone from the kidney. Carefully examine the diapers for little concretions, and take

careful notice of his water. Send for your doctor, and keep a specimen of his urine if his age and habits will allow of your obtaining one. If not, you may be able to catch some of it in a *clean* sponge, which is then squeezed into a clean glass. Children of gouty parents may suffer in this way. Sometimes infants, especially if they are suffering from indigestion, have a temporary stoppage of urine. The act of passing water pains them, and the urine contains red sand, and is high colored. In older children *frequency* of passing water takes the place of stoppage. If an infant, give him boiled warm water to drink between his meals, and in all cases regulate the diet, substituting fish for meat in those on a full dietary. Keep warm in bed, and apply hot fomentations if necessary. A mild laxative should be given, such as Citrate of Magnesia. Consult your doctor. An infant may pass blood in his water. It may be due to "grit" in the kidney, or to scurvy, or to other causes. Call your doctor's attention to the fact should you notice this, and he will find out what is amiss with the baby.

117. *How soon may an infant dispense with diapers?*

A babe of three months and upwards ought to be held out at least a dozen times during the twenty-four hours. If such a plan were adopted, diapers might be dispensed with at the end of three months—a great advantage. The babe would be inducted into clean habits, a blessing to himself, and a comfort to all around, and a great saving of dresses and of furniture. "Teach your children to be clean. A dirty child is the mother's disgrace."* Truer words were never written—A DIRTY CHILD IS A MOTHER'S DISGRACE.

AILMENTS, DISEASE, ETC.

118. *A new-born babe frequently has a collection of mucus in the air passages, causing him to wheeze: is it a dangerous symptom?*

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* *Hints on Household Management.* By Mrs. C. L. Balfour.

No, not if it occur *immediately* after birth; as soon as the bowels have been opened, it generally leaves him, or even before, if he give a good cry, which as soon as he is born he usually does. If there be any mucus either within or about the mouth, impeding breathing, it must with a soft handkerchief be removed.

119. *Is it advisable, as soon as an infant is born to give him medicine?*

It is not proved that the giving of medicine to a babe *immediately* after birth is unnecessary, nay, that it is hurtful—that is, provided he be early put to the breast, as the mother's *first* milk is generally sufficient to open the bowels. Sir Charles Locock * has made the following sensible remarks on this subject: "I used to limit any aperient to a new-born infant to those which had not the first milk, and who had wet nurses, whose milk was, of course, some weeks old, but for many years I have never allowed any aperient at all to any new-born infant, and I am satisfied it is the safest and the wisest plan."

Try by all means to do, if possible, without a particle of opening medicine. If you once begin to give aperients, you will have frequently to repeat them. Opening physic leads to opening physic, until at length his stomach and bowels will become a physic shop! Let me then emphatically say—if possible, avoid giving a new-born babe a drop or a grain of opening medicine. If from the first you refrain from giving an aperient, he seldom requires one afterward. It is the *first* step, in this as in all other things, that is so important to take.

If a new-born babe have *not* for twelve hours *made water* the medical man ought to be informed of it, in order that he may inquire into the matter, and apply the proper remedies. Be particular in attending to these directions, or evil consequences will inevitably ensue.

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* In a *Letter* to the Author.

120. *Some persons say that new-born infants have milk in their bosoms, and that it is necessary to squeeze them, and apply plasters to disperse the milk.*

The idea of there being real milk in a baby's breast is doubtful, the squeezing of the bosom is barbarous, and the application of plasters is useless. "Without actually saying there is milk secreted in the breasts of infants, there is undoubtedly, not rarely, considerable swelling of the breasts both in *female* and *male* infants, and on squeezing them a serous fluid oozes out. I agree with you that the nurses should never be allowed to squeeze them, but be ordered to leave them alone."—*Sir C. Locock.*

Manipulation is also undertaken by the nurse with the idea that she is "breaking the nipple strings," and so "freeing the nipples," and preventing retraction of them at puberty. If she be allowed to rub the breasts, no matter what idea she may have in her mind, remember that an abscess may form from the rough handling, and then the subsequent growth of the nipples may be interfered with, and they may become retracted for all time, and even the gland itself be partially or wholly destroyed.

121. *Have the goodness to mention the* SLIGHT *ailments which are not of sufficient importance to demand the assistance of a medical man.*

I deem it well to make the distinction between *serious* and *slight* ailments; I am addressing a mother.

With regard to serious ailments, I do not think myself justified, except in certain *urgent* cases, in instructing a parent to deal with them. It might be well to make a mother acquainted with the *symptoms,* but not with the *treatment,* in order that she might lose no time in calling in medical aid.

Serious diseases, *with few exceptions,* and which I will indicate in subsequent Conversations, ought never to be treated by a parent, not even in the *early* stages,

for it is in the early stages that the most good can generally be done. It is utterly impossible for any one who is not trained to the medical profession to understand a *serious* disease in all its bearings, and thereby to treat it satisfactorily.

There are some exceptions to these remarks. A mother ought to be made acquainted with the *treatment* of *some* of the more *serious* diseases, where delay in obtaining *immediate* medical assistance might be death.

The following ailments and diseases of infants are such as may, in the absence of the doctor, be treated by a parent.

122. *What are the causes and the treatment of Chafing?*

Want of water, inattention, and uncleanliness are the usual causes.

The chafed parts ought to be well and thoroughly sponged with tepid water, allowing the water, from a well-filled sponge, to stream over them, and afterwards they should be thoroughly but tenderly dried with a soft towel, and then be dusted with Boracic Acid Powder or a mixture of equal parts of Oxide of Zinc and Starch.

If, in a few days, the parts be not healed, discontinue the above treatment, and use the following application :—Beat up well together the whites of two eggs, then add, drop by drop, two tablespoonfuls of brandy. When well mixed, put into a bottle and cork up. Before using, let the excoriated parts be gently bathed with lukewarm water, and be tenderly dried with a soft napkin ; then, by means of a camel's-hair brush, apply the above liniment, having first shaken the bottle. But bear in mind, after all that can be said and done, *that there is nothing in these cases like water*—there is nothing like keeping the parts clean, and the only way of *thoroughly* effecting this object is *by putting him every morning* INTO *his tub.* If the sore places are

neglected serious results may happen. For instance, deep ulcers may arise in the groin from this neglect, and the baby may die.

Remember, for the cure of these, where there is much moisture, the chief thing is to prevent neighboring sore places rubbing together—the folds of the groin, for example—and this can be accomplished by separating the parts by a fold of lint after the application of the dressing.

123. *What are the causes and symptoms of Convulsions, or "inward fits," and allied nervous disorders of an infant?*

In the first place, it is necessary that you should be told a few facts about the infant's nervous system, which will enable you the more readily to understand this complaint. The lower grade nervous centers are more developed than the higher grade, and are not under such control as later on in life, so that they the more readily run riot if set in action.

The lower grade nervous centers rule over such complicated movements as breathing, crying, sneezing, coughing, yawning, sucking, swallowing, vomiting, defæcation, urination, jerking movements of the arms and legs, grasping movements, and so on. These movements may either take place from nervous impulses arising in the centers themselves, or are caused by some stimulation from a distance, conveyed to these centers by the nerves, and setting them in action. For example, the finger when placed in the infant's mouth causes sucking, if placed in contact with the eye the closure of the lids, on tickling the soles of the feet the feet are withdrawn, at a loud noise a starting movement, and so on.

Each stimulation, therefore, produces an appropriate, orderly, purposeful movement, or a series of orderly, purposeful movements.

It is not until the fourth month that the higher grade nervous centers commence to develop their powers of control over the lower grade, and then the voluntary holding up of the head and the clasping of the hand are noticed. Step by step the infant proceeds to higher accomplishments, the subjugation of the lower grade centers being effected slowly but surely. The infant now begins to "take notice"; his attention is attracted to himself, his clothes, the objects within his grasp, his surroundings. The complicated muscular movements of the eyes and the limbs which these entail, are all being learned. He appreciates his mother or his nurse singing to him, he dislikes noises, strange faces, strange objects, and shows his likes and dislikes, temper and fear, by appropriate muscular movements. He *imitates* movements, as those of laughing, crying, head-nodding, pointing with the finger, and so on. He becomes able to hold his water, to control his motions, and, finally, at the end of the first year, he has passed through the mysteries of crawling, the standing upright with the assistance of a chair or a table, and is commencing to imitate voice sounds and to master the difficulties of walking. But even then, unless the child's nervous system be a very evenly balanced one, the lower centers are still very powerful, and may readily revolt.

Rickets is a most important factor in the production of convulsions. The ill-developed and poorly-nourished bones are associated with an ill-developed and poorly-nourished nervous system; instability is the result.

The union of persons with a nervous inheritance, and the marriage of debilitated people, perhaps the offspring of a weak and degenerate stock, or of those who are too young, or too old, or of those who are personally diseased, does not lend itself to the production of a perfectly stable nervous organization, but to the procrea-

tion of an easily excited, highly-explosive brain and spinal marrow.

Given, then, these factors in combination, it will frequently happen that an irritation from a distance, such as indigestible food in the stomach or bowels, conveyed by the nerves to the central nervous system, though slight in itself and trivial to the healthy organization, can in the unstable, highly-excitable mechanism, produce such commotion that even neighboring areas, quite outside the ordinary sphere of action, are thrown into a state of intense excitement and disorder by the stimulation. They explode, as it were, at the slightest touch, the explosions being fast and furious; and, exploding, they involve other and wider areas in their turmoil, so that finally the whole nervous system may be in a state of violent disturbance, and disorder reigns supreme. The outward and visible sign of the nerve-storm raging within is the convulsive attack. Disorderly, purposeless movements here take the place of those that are orderly and purposeful, or the muscles are rigidly fixed in a state of spasm.

The convulsive attack is much as follows: The eyes are fixed or rolled up with or without squinting, the face is pale at first, afterwards dusky-looking; there is stiffness of the whole body, the back being arched and the head thrown back. The hands are clenched. The stiffness is followed by relaxation, or by "working" of the limbs, face, and eyes. If the fit is accompanied by a scream, mothers and nurses often term them "screaming fits." Sometimes the convulsion takes place on one side of the body only. There may be one fit or a series of fits, lasting several hours, with slight foaming at the mouth. After such an attack the child is often drowsy. Sometimes the face and eyes and hands and feet "work" without being first fixed.

Such is the actual convulsive attack, but not infrequently before the first fit is an accomplished fact the

irritability and instability of the nervous system may attract attention by the following phenomena :—

(1) *Child-crowing* (*Laryngismus Stridulus*). The breath stops suddenly, the chest is fixed, the face, with open mouth, is screwed up as for a good cry, it alters in color, first becoming pale, then dusky, or even blue, as suffocation advances, and finally the breath comes again with one long, deep-drawn "crowing" respiration. The "crowing" noise, or a series of "crowing" noises, lasting a few or more seconds, commencing loudly, gradually becoming less noisy, and finally disappearing, may be the most prominent and the ONLY, and perhaps oft-repeated, sign to the mother or nurse. An attack is often induced by such a simple procedure as gently tossing the child ; but any emotional upset will bring it on, such as a sudden fright, a fit of temper, and the like. On the other hand, the attack may be so severe that the anxiously expected respiratory crow does not take place, and the child passes into general convulsions. The long-drawn respiratory crow may give place to a series of "sobbing" respirations. The attack may alone consist of holding the breath, nothing more. Child-crowing may also be associated with

(2) *Tetany.* The thumbs are clenched in the palms, and the fingers closed over these, or the thumb tips are placed between the middle and ring fingers, the fingers being bent at the knuckles but otherwise extended. The soles of the feet are hollowed, and sometimes turn in, and the toes are fixed, the heels drawn up. The hands may alone be affected, or the hands and feet together ; but in severe cases the muscles of the limbs are stiff, perhaps the body muscles are involved, and the head thrown back, and even the jaw muscles may be in a state of spasm. There is no loss of consciousness. The affliction is a painful one, causing the infant to cry if it is touched. The hands and feet are often swollen. It may last a day or two or several weeks, being more or

less pronounced from time to time, the cramp coming on spasmodically.

(3) "*Inward Convulsions.*" The child is irritable and fretful, the face changes color, the mouth twitches slightly, and the eyes squint, all being over in a few seconds. Or the toes are flexed, the fingers "work," and the thumbs turn in. Some nurses and mothers call these "inward convulsions."

(4) *Head Nodding.* Two varieties of this are seen—viz., a to and fro jerking movement—movement of assent—and a side to side movement—movement of dissent.

These movements may be intermittent, occurring several times during an hour, or they may be almost constant. Head nodding may be associated with peculiar very rapid oscillations of the eyeballs (nystagmus), which are either side to side, or up and down, or rotatory, and which finally get well.

Nystagmus may also be due to some disease in the eyeball itself, or to some serious brain mischief.

(5) *Retraction of the Head.* The head is thrown back and rigidly fixed as in a convulsive attack. Sometimes retraction is found in association with spasms of the muscles, without loss of consciousness (tetany). It occurs also *alone.* It *may* be induced, like a fit, by some bowel or stomach disturbance, but it is much more likely to denote *serious* brain disease, therefore do not delay taking advice if you detect this peculiarity.

The rickety infant of nervous parentage is specially liable to many and various nervous disorders often induced by trifling irritations. If your child, then, suffers from any one of the complaints mentioned, he should be placed under the care of a doctor. He is not being properly fed, his surroundings are not healthy, and you had better take advice, so that the cause can be discovered and errors remedied. The actual exciting of a convulsive attack in such infants are many and vari-

ous, such as bowel and stomach worries, worms, dentitions, febrile attacks, and so on; occasionally brain disease.

But *strong* stimulations, such as the onset of scarlet fever, a high temperature, and inflammation of the ear, *may* give rise to convulsions in even the healthy child. If convulsions occur within the first few days or weeks of life in the full-term child, they are, in the absence of some serious congenital malformation or obvious dyspepsia, due to local injury to the blood vessels on the surface of the brain during birth, or to some inflammatory attack of the brain substance happening to the infant whilst still in the womb, or to some congenital brain abnormality.

Stuffing him in the early months of his existence *with food*, and constantly physicking him with quack medicines, are sure and certain roads to the production of a state of brain and spinal marrow ripe for mischief.

For the treatment of the convulsions from teething, see Conversation 90.

124. *What to do in a case of Convulsions which has been caused by feeding an infant either with too much or with artfiicial food.*

Give him, every ten minutes, a teaspoonful of Ipecacuanha Wine, until free vomiting be excited, then put him into a warm bath (see Warm Baths); and when he comes out of it, administer to him a teaspoonful of Castor Oil, and repeat it every four hours until the bowels be well opened.

125. *What to do in a case of Convulsions from a high temperature.*

If his temperature be 104° Fahr. or over, put him in a tepid bath, and sponge the head and shoulders with cold water.

126. *What to do in a severe attack of Child-crowing.*

Send for a medical man at once. Dash cold water in

the face, pat the child on the back, and vigorously shake him. If this does not succeed seize the tongue with a handkerchief and sharply pull it out of the mouth, having first opened the jaws with the handle of a spoon. Try this method in combination with artificial respiration.

When the child recovers he will have to undergo a careful course of treatment by your medical man. His hygienic surroundings are at fault.

127. *What to do in a case of Tetany or Head Nodding or Head Retraction.*

Consult your medical man. A course of judicious dieting and skilful medical treatment will be necessary, and his hygienic surroundings require modification. Retraction of the head may be a very serious matter.

128. *What to do in a case of Convulsions from Hooping-cough.*

There is nothing better than dashing cold water on the face, and immersing the child in a warm bath of 98° Fahr. If he does not come round, resort to artificial respiration, and do not relax your efforts until the arrival of the doctor. Convulsions seldom occur in hooping-cough unless the child be either very young or exceedingly delicate. Convulsions attending an attack of hooping-cough is a *serious* complication, which will require the assiduous and skilful attention of a judicious medical man. Convulsions may be due to temporary suffocation, caused by the paroxysmal cough. Sometimes convulsions denote the fact that there are *serious lung complications,* or they are the first indication of tubercular meningitis. Do not attempt to treat the case yourself. In fact, I would urge this in all convulsive attacks. A skilled medical man will discover the cause where you will fail. But if it is a matter of life and death, act on the emergency, and act promptly, for by so doing you will probably save your child's life.

129. *Are Convulsions serious apart from their immediate danger to life?*

Certainly. After a convulsive attack a child may become imbecile, and the more numerous and more frequent the convulsions the greater is the danger to the dawning intellect. Sometimes convulsions are followed by loss of the use of one side of the body. This may pass away within a few hours, but the paralysis may be obstinate, and leave, perhaps, a weakened, stiffened arm, and possibly leg as well, as a relic of the disaster. In the latter case blood has been poured out from a ruptured vein, or has oozed from the veins, either on the surface of the brain or into the brain itself, or both of them, and the resulting mischief will depend upon the amount of the injury to that delicate organ and to the repair that is possible under the circumstances. Convulsions in an infant are often the FIRST symptoms of tubercular meningitis. In this paralysis of one side may be left after the fit ; but, unlike the former case, instead of improving, the child goes from bad to worse.

130. *Are there any forms of Paralysis which date from birth ?*

Yes, sometimes an infant is most unfortunately attacked with inflammation of the brain whilst yet within the mother's womb. As a result of this large areas of the brain substance become hard and shrunken, and lose their powers. Such a child suffers from stiffness and contraction of the limbs and body, and the head is thrown back. It can never develop mentally if the mischief is great.

When labor has been difficult and prolonged, blood may ooze or burst from the veins on the surface of the infant's brain, or into the brain itself. As a result of such a serious misfortune, changes of a destructive nature are brought about in the brain. But little, apart from the initial convulsion, is noticed by the

mother, perhaps, for some months, or not until it is time for the baby to walk. These accidents cause either stiffness and weakness of the legs, or the arms may suffer, or all the limbs, or the spasm and weakness may be on one side of the body only. The legs are *usually* the parts affected. The capacity for mental development varies. They may be incapable of mental development without any paralytic symptoms.

131. *What is the treatment?*

When the paralysis has occurred after a "fit" every means must be adopted to prevent a recurrence of the convulsions. Send for your doctor. The child's general health requires attention. Wrap the arm and leg in cotton wool, and keep them quiet; they are not to be shampooed or galvanized *until your doctor allows such treatment,* or harm will be done. For birth palsies your medical man must be consulted. Gymnastic exercises will prove of great assistance in due course. The result will depend on the amount of mischief the brain has experienced.

132. *Soon after my child was born, I noticed that his face was drawn up to one side. Will this pass away?*

Yes; the face will resume its proper symmetry in the course of a week or two. The cause of the temporary disfigurement is due to some pressure on the head during birth. No treatment is necessary.

133. *Soon after birth I noticed that his arm was hanging helpless. Will this pass away?*

Your doctor will have noticed whether the bone has been broken or the shoulder dislocated owing to a difficult labor. If this has not happened it is probable that some injury has been done *from the above cause* to the big collection of nerves (the brachial plexus) that supplies the arm. Nothing must be done in the way of treatment. The arm must be loosely bandaged to the side, and the parts allowed to rest for several weeks, in

order that the injury may be repaired and the blood that has escaped may be absorbed. Afterwards your doctor will doubtless resort to exercise, shampooing, and galvanism. The amount of loss of power to the limb will depend upon the extent of the injury to the nerves and the extent of their recovery. Recovery is *very often* incomplete.

There is also a form of paralysis, called *Pseudo-Paralysis,* which often attacks the arms, and is usually seen some weeks after birth. It is owing to constitutional weakness, and requires constitutional treatment. If the constitutional weakness is not too great the paralysis can be cured. Sometimes blood escapes under the scalp in cases of difficult labor, forming a tumor. The effusion of blood is, however, soon dispersed, and it should be left alone.

134. *Soon after birth I noticed a lump in the front of my child's neck. What is it?*

This is also due to an accident at the birth. Blood has been shed into one of the neck muscles (sterno-mastoid muscle), which forms a swelling of the muscle. The swelling is generally about the size of a pigeon's egg. It will gradually disappear, but it *may* cause shortening of the muscle, and so lead to permanent wry-neck, which would require an operation for its cure.

135. *What are the best remedies for the Costiveness of an infant?*

If a babe, after the first few months, were held out, and if, at regular intervals, he were put upon his chair, costiveness would not so much prevail. It is wonderful how soon the bowels, in the generality of cases, by this simple plan, may be brought into a regular state. Besides, it inducts an infant into clean habits. I know many careful mothers who have accustomed their children, after the first three months, to do without diapers altogether. It causes at first a little trouble, but that trouble is amply repaid by the good conse-

quences that ensue, among which must be named the dispensing with such encumbrances as diapers. Diapers frequently chafe, irritate, and gall the tender skin of a baby. But they cannot, of course, at an early age be dispensed with, unless a mother have great judgment, sense, tact, and perseverance, to bring her little charge into the habit of having his bowels relieved and his bladder emptied every time he is either held out or put upon his chair.

If you are wise, you will defer as long as you can giving an aperient. If you once begin, and continue it for a while, opening medicine becomes a dire necessity, and then woe betide the poor unfortunate child. If necessary, administer a warm water enema—a tablespoonful, or more, by means of a 2 oz. indiarubber enema bottle or syringe. Or pass into the fundament, every night, a small piece of tallow candle or soap, or a glycerine suppository, or a glycerine enema, one drachm for a dose.

The dietary must be criticised. If he be at the breast the mother's or the wet nurse's milk may be at fault—very possibly too deficient in fat. A chemical anaylsis will determine this. If the fat be poor, study Conversation 64. If the mother takes stewed fruit it may set matters straight. If this fails try a suppository in the baby's fundament, but do not give opening medicines, and carefully analyze your habits of life. Sometimes babies have an hereditary tendency to constipation. If the infant is hand-reared you are much more likely to be in trouble in this respect. There is possibly too much curd and too little fat in the motions unless you have carefully studied the directions for artificial feeding (see Conversation 52, 58 and 60) ; and if you have not studied them do so with all speed, and resort to a more suitable dietary. Barley sugar water in place of sugar water will probably meet the case, but if this does not act use oatmeal water instead. Pale, pasty-

looking, large and solid motions, usually expelled with jelly (mucus), and perhaps a little blood, are frequently seen when the cow's milk is not properly adapted. If the above fails, his large bowel is probably wanting in expulsive power, therefore stimulate the parts by the introduction of a suppository, or study "Mechanical Aids," Conversation 137. The child himself is probably pale, pasty-looking, pot-bellied, and rickety withal. He wants tonics and plenty of fresh air, not powerful purgatives. Perhaps you are giving him quack medicines or teething powders? If you are, many of them contain opium, and lock up the bowels.

There are two preparations of Mercury I wish to warn you against administering of *your own accord*—viz., (1) Calomel, and a milder preparation called (2) Grey-powder (Mercury with Chalk).

Mercury is a medicine of immense power, either for good or evil. In certain cases it is very valuable; but in others, it is very detrimental. Calomel and Grey-powder ought never to be administered unless ordered by a medical man.

Jalap is also frequently given, but it is a griping medicine for a baby, and ought to be banished from the nursery.

The frequent repetition of opening medicines, in any shape or form, irritates beyond measure the tender bowels of an infant, and only makes him more costive afterwards; it also interferes with his digestion. A mother who is always, of her own accord, quacking her child with opening physic, is laying up for her unfortunate offspring a debilitated constitution—a miserable existence. Drugs may, on suitable occasions, prove useful and beneficial, but they must be administered by a medical man, and not recklessly by the mother.

136. *Are there any means of preventing the Costiveness of an infant?*

Yes; in addition to attention to diet, exercise in the

open air, thorough ablution of the *whole* body, causing the water from a large and well filled sponge to stream over the lower part of his bowels ; the habit of holding him out, at stated periods, whether he want or not, that he may solicit a stool.

Some mothers are frequently dosing their poor unfortunate babes either with Magnesia to cool them, or with Castor Oil to heal their bowels ! The frequent repetition of Magnesia, instead of cooling an infant, makes him feverish and irritable. The constant administration of Castor Oil, instead of healing the bowels, wounds them beyond measure.

137. *Are there any mechanical aids for inducing a regular action of the bowels?*

Yes, there are several. The first I will name is that of shampooing or rubbing the stomach. By the stomach I mean all that part of the body below the breast bone and between the hips, and which is called medically the "abdomen." Well, let the abdomen be well but gently rubbed from the right-hand side to the left of the body, night and morning. The doing so will induce the bowel to act. The hands may be anointed with a little oil to prevent breaking the skin of the child, or soap liniment may be rubbed in instead. Next, there is an old practice amongst nurses to pass a small piece of tallow candle into the fundament or back passage. In persistent costiveness I always order a ten-grain suppository of cocoa-butter to be passed night and morning into the fundament. This is a more elegant aid, but not more effectual than the tallow candle. And now let me here caution you. I have known nurses to irritate the bowel by passing a piece of paper into the fundament. I need not say a word in condemnation of this atrocious proceeding. I name it to put you on your guard. Besides the cruelty, it leads to inflammation of the parts, and the protrusion of the bowel externally.

138. *But may not Constipation be due to causes other*

than sluggish bowels or unsuitable food, and of a very serious nature indeed?

Certainly. There may be a fissure inside the back passage, or some obstruction to the bowel, dating from birth. Very rarely the large bowel may be greatly distended and weakened. If constipation be associated with vomiting your medical man had better see the baby. There may be other symptoms pointing to brain trouble, or if he have a rupture which will not return, that may be the cause; or it might happen—and this is not rare in young babies—that one part of the bowel has doubled itself into an adjacent part (intussusception), bringing about a stoppage. In this latter case the child will soon become very ill, there will probably be much jelly and blood from the back passage, and straining in addition to the sickness. A lump may be felt in his abdomen. The constipation may be owing to tubercular peritonitis, or some other disease inside the abdominal cavity.

You will see, therefore, that constipation is not always due to simple causes, and it may be a very serious matter indeed; and in at least two of the above illustrations the administration of purgatives would prove a most serious blunder on your part, but in the case of a medical man a harsher term would be applied.

139. *You have already mentioned two causes for bleeding from the bowel. Are there others?*

Yes. Sometimes the lower bowel protrudes from the back passage, and there is often a little bleeding on such an occasion. If blood with mucus come from the back passage, and there is straining, he probably has a small growth, called a polypus, situated a short distance up the bowel. Call your doctor's attention to the symptoms, and ask him to examine the child. If he is suffering in this way he will require an operation. Constipation as a cause I have already mentioned, and that dangerous disease, occasioning stoppage of the

bowels, called Intussusception, which is most urgent, and will require IMMEDIATE attention. Sometimes a little blood comes from the back passage, and also from the front passage, soon after birth, but this is due to congestion arising at the birth, and need not cause alarm. Scurvy may also be a cause.

140. *What are the causes, symptoms of, and remedies for Flatulence and Colic?*

The symptoms come on soon after food. The child becomes restless, cries pitifully, kicks its legs and grunts, its stomach is swollen, it cannot sleep, but if it sleeps its slumber is disturbed. "Wind" in a short time is passed either by the mouth or the bowel. If the attack is at all severe the little sufferer turns pale, the legs are drawn up, he gives a piercing or a long harsh scream, the abdomen is hard and distended, and relief is only obtained by the expulsion of the wind. If wind is expelled by the mouth sometimes curd comes with it. If he is put to the nipple to comfort him he turns away from it and cries bitterly. I merely mention this practice to condemn it, because giving a child food when he has stomach-ache *is one of the worse things you can do.* Your "nerves" are relieved at the expense of his stomach.

Flatulence and Colic most frequently occur in those infants who live on *artificial* food, especially if they be overfed. I therefore beg to refer you to the precautions I have given, when speaking of the importance of keeping a child for the first five or six months *entirely* to the breast; and, if that be not practicable, of the times of feeding, and of the *best* kinds of artificial food, and of those which are least likely to cause "wind."

If the cause arises from the mother, it may be traced to her having been indiscreet in her diet, or having taken drastic purgatives, or to some other indiscretion.

Some infants are food-bolters, and whether at the breast or bottle, they are greedy little things if not

checked. Rapidly gulped meals are sure to produce "wind," decomposition with formation of gases (wind) taking the place of digestion. Therefore, if the child is fed from the breast, take care that he does not feed too rapidly, and if his nurse is feeding him from the bottle, as she will have to do, if a proper bottle is used she must control his desires. Carefully examine his motions, and see if he is passing curds, and, if he is, further dilution of the milk, or the substitution of sugar barley water, may be advisable, or, as a temporary measure, the use of peptonized milk or cream and whey. Possibly he is taking too much milk; if so, lessen the quantity. Possibly the milk is too poor, or there is not enough of it; and, if so, its quality or quantity must be improved, or the breast milk may have to be supplemented by Cream Mixture, or by Gaertner's Mother Milk.

Notwithstanding these precautions, if the babe should still suffer, "One of the best and safest remedies for flatulence is Sal-volatile—a teaspoonful of a solution of half a drachm to an ounce and a half of water."—*Sir C. Locock.* Or, a little Dill or Aniseed may be added to the food—half a teaspoonful of Dill Water. Or, take twelve drops of Oil of Dill, and two lumps of sugar; rub them well in a mortar together; then add, drop by drop, three tablespoonfuls of spring water; let it be preserved in a bottle for use. A teaspoonful of this, first shaking the vial, may be added to each quantity of food. Or, three teaspoonfuls of bruised caraway seeds may be boiled for ten minutes in a teacupful of water, and then strained. One or two teaspoonfuls of the caraway tea may be added to each quantity of his food, or a dose of Rhubarb and Magnesia may occasionally be given (Prescription V. in Appendix).

Opodeldoc, or warm olive oil, well rubbed for a quarter of an hour at a time, by means of the warm hand, over the bowels, will frequently give relief. Turning

the child over on his bowels, so that they may press on the nurse's lap, will often afford great comfort. A warm bath (where he is suffering severely) generally gives *immediate* ease in flatulence ; it acts as a fomentation to the bowels. Another excellent remedy is the following : Soak a piece of new flannel, folded into two or three thicknesses, in warm water, wring it tolerably dry, and apply, as hot as the child can comfortably bear it, to the bowels, then wrap him in a warm, dry flannel, and keep him for at least half an hour enveloped in it. Under the above treatment he will generally soon fall into a sweet sleep, and awake quite refreshed. *But, after all, a dose of mild aperient medicine,* or a large enema of tepid water when the babe is suffering severely, are the *best remedies* for *"wind."*

Remember, at all times, prevention, whenever it be —and how frequently it is—possible, is better than cure. Be careful to keep him well wrapped up ; the legs, mind, are to be clothed as well as the body, and as soon as a napkin is soiled it is to be removed at once. Do not fly to drugs until you have thoroughly mastered the food problem. Drugs will relieve his symptoms, but they will not cure him. The cure lies in finding out—especially if he be a bottle-fed baby—the particular milk combination suited to his powers of digestion and on *which he thrives.*

Do not administer any quack medicines. They contain, in one form or another, either opium or poppy. ALL quack medicines must be carefully avoided—indeed, banished from the nursery.

141. *What occasions Hiccup, and what is its treatment?*

Hiccup is generally of such a trifling nature as hardly to require interference. It may generally be traced to over-feeding. Should it be severe, four or five grains of Calcined Magnesia, with a little syrup and Aniseed Water, and attention to feeding, are all that will be

necessary. If it be persistent call in your doctor without delay.

142. *Will you describe the symptoms of Diarrhea?*

It will be well, before describing the symptoms, to again tell you how many motions a young infant ought to have a day, their color, consistence, and smell. Well, then, he should have from three to four motions in the twenty-four hours during the first two months of life, afterwards only two ; the color ought to be a bright yellow, inclining to orange ; the consistence should be that of thick gruel. The motion ought to be somewhat of the color (but a little more orange-tinted) and of the consistence of mustard made for the table. It should be nearly, if not quite, devoid of smell ; it ought to have a faint and peculiar but not a strong, disagreeable odor. If it have a strong and disagreeable smell the child is not well, and the case should be investigated, more especially if there be either curds or lumps in the motions. These latter symptoms denote that the food has not been properly digested.

Now, suppose a child should have a slight bowel complaint, and that the stools are of a thinner consistence than what I have described—provided, at the same time, that he be not griped, that he have no pain, and have not lost his desire for the breast—What ought to be done ? *Nothing.* A slight looseness of the bowels should *never* be checked. It is often an effort of Nature to relieve itself of some vitiated motion that wanted a vent.

A moderate "looseness of the bowels" is often a safety-valve, and you may with as much propriety close the safety-valve of a steam-engine as stop a moderate "looseness of the bowels !"

Now, if the infant have five or six or more motions in the twenty-four hours ; if they be more watery ; if they become slimy and green, or green in part and curdled ; if they should have an unpleasant smell ; if he be sick,

cross, restless, fidgety, and poorly; if his stomach is distended with wind; if he cannot be soothed to sleep; if every time he have a motion he be griped and in pain, we should then say that he is laboring under diarrhea. Two or three days of such trouble will reduce a well-formed infant to such a condition that his flesh will be limp, his skin loose, his buttocks red and sore. His tongue is coated, his mouth reddened and tender or slightly ulcerated (see Conversation 159). A change will take place in a few days, and his motions become natural and his skin fills out again, or he may pass into a worse condition, the so-called cholera-infantum (inflammatory diarrhea). Sometimes after an attack of diarrhea he suffers from *chronic diarrhea,* and if such bowel troubles are frequent he is sure to become rickety.

Should there be both blood and slime mixed with the stool, and the child strain frequently and violently, endeavoring thus, but in vain, to relieve himself, crying at each effort, the case assumes the character of dysentery.*

The later case requires great skill and judgment on the part of a medical man, and great attention and implict obedience from the mother and the nurse.

143. *What are the causes of Diarrhea—"Looseness of the bowels?"*

The colostrum in newly-born infants, and this looseness of the bowels is natural. Improper food; overfeeding, associated with teething; cold; atmospheric disturbances electrical and otherwise; the mother's milk from various causes disagreeing—namely, from her being out of health, from her eating unsuitable food, from her taking improper and drastic purgatives, from worry, anxiety, and temper, or from her suckling her child when she is pregnant. If any of these causes are in operation, they ought to be remedied, or medicine to the babe will be of little avail.

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* See Symptoms and Treatment of Dysenteric Diarrhea.

144. *What is the treatment of Diarrhea?*

If the case be *slight*, and has lasted two or three days, and if the cause, as it probably is, be some acidity or vitiated stool that wants a vent, and thus endeavors to obtain one by purging, the best treatment is to assist Nature by giving either a dose of Castor Oil or a moderate one of Rhubarb and Magnesia.* Should there be sickness give Prescription VI. every two hours until all the curds have passed. If medical advice cannot be procured, Prescription VII. in the Appendix should next be given.

If the babe be at the breast, the mother must not take greens, or cabbage, or raw fruit, or pastry, or beer; indeed, while the diarrhea of her babe continues, she had better abstain from wine, as well as from fermented liquors.

If the attack is a severe one, the motions numerous, the curds plentiful, and attended by vomiting of curds or not, then if the infant at the breast reduce the quantity of the breast milk, and supplement *each* feeding by sugar barley water, or if necessary, withhold the breast altogether for a few days until a change for the better is noticed, and give egg and barley water (for its preparation see below). If the child is being fed with cow's milk, substitute for it peptonized milk. If curds still appear in the stools, give the following food for a few days in suitable quantities according to his age (see Table, Conversation 59). Take the whites of two fresh eggs, break them up and shake them with six ounces of Cinnamon Water and a little salt; strain through muslin, make up to a pint with sugar barley water. When improvement takes place gradually return to the peptonized milk, until finally this can be withdrawn and the modified cow's milk reinstated.

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* For a Rhubarb and Magnesia mixture prescription, see Appendix, Prescription V.

145. *What are the symptoms of Dysenteric Diarrhea?*

Sometimes when an infant has been troubled with diarrhea for a day or two, or perhaps more, the character of the motion changes; from being principally stool it becomes almost entirely blood and jelly. He is dreadfully griped, he strains violently as though his inside would come away every time he has a motion, he screams and twists about, being in the greatest pain, drawing his legs up to his belly and writhing in agony. The bowel often comes down. The "stomach" is tender, and there is fever, and great weakness comes on. There may be sickness as well. Sometimes this disease comes on during the progress of cholera infantum (see Conversation 146), or it follows measles or hooping-cough.

He must be fed on the egg mixture (see Conversation 144); all milk must be withheld; poppy fomentations are to be applied to the stomach. He should have a Bismuth mixture (see Conversation 144), and every three hours, or oftener if required, an injection should be made up the back passage of starch and opium, which is to be thrown *well inside the bowel*—two teaspoonfuls of warm starch and water to the consistence of a thick cream, with two or three drops of laudanum.

The disease is *rare*, more especially in infants. *If such symptoms are present in an infant, they are almost certain to be due to a stoppage of the bowels* (see "Intussusception," Conversation 138).

Send, therefore, for your doctor without delay. There is no time to be lost. If, after all, the disease is really Dysenteric Diarrhea, the child should be treated by your doctor.

146. *What are the symptoms of Inflammatory Diarrhea (Cholera Infantum)?*

Inflammatory Diarrhea or Cholera Infantum is one of the most frequent and serious of infantile diseases usually

occurring in the months of June, July, August, and September, and carries off during that time more children than any other complaint whatever. A knowledge of the symptoms, therefore, is quite necessary for a mother to know, in order that she may, at the proper time, call in efficient medical aid.

The infant is attacked quite suddenly, and his illness commences with sickness, but he may have been troubled with simple diarrhea for a few days preceding. He has a dozen or two of motions, many of them slimy and frothy like "frog-spawn," during the twenty-four hours. He has fever (temperature ranging from 99° to 103° Fahr., rarely to 105° or 106° Fahr. or more), the tongue is coated, red and dry at the tips and edges, his bowels are distended with wind, and he is racked with cramp in the belly, his legs are drawn up, he has a pained expression, and he is irritable and fretful to a degree. He is tortured with thirst, he seizes the bottle or the breast, and drinks greedily, and the very next moment thrusts it from him with a cry. Now look at his face! It is the very picture of distress. Suppose he has been a plump, healthy little fellow, you will see his face in the course of a few hours become old-looking, careworn, haggard, and pinched. Day by day and hour by hour the enemy tracks him (unless proper remedies be administered); no sleep, or if he sleeps he is roused every few minutes. A change may happen for the better, and he gradually is released from the jaws of death. But if this change is not forthcoming see what happens. Having disposed of all the curds or undigested milk in the stomach, the vomit is now a bilious, watery fluid. The evacuations from the bowels no longer contain any food materials; they are like water, or rice water, or coffee-brown water, which smells badly.

This alteration in the character of the evacuation is very serious—most serious two or three such evacuations—and a marked change is seen in the appearance of the

child. His eyes are dull, not bright and sparkling as of yore, the lids are partly closed, and the globes, instead of being prominent, have sunk deeply into their sockets, leaving big saucer-like depressions, partially covered by the dark lids; a dark ring surrounds the lips. The head, where the skull bones have not met, is sunken-in, and the edges of the bones are remarkably prominent. The skin of the face is shrunken, and the face bones are outlined so prominently that were it not for its color it might belong to a mummy. His limbs are shrunken, his skin is cold and corpse-like, his belly has fallen in, his buttocks are red and raw, he is powerless to lift his head or his arms, he is unable to cry, but perhaps can whine, his temperature is much below normal.* He just breathes, his pulse is with difficulty, if at all, felt beating at the wrist, he is unable to recognize his mother or his nurse, or, if roused, he may partially open his eyes, give utterance to a faint, plaintive whine, and relapse once more into unconsciousness. When in this stage there is usually no vomiting, and the diarrhea is much less. He may rally if not too far gone, but insensibility and *irregular breathing* are very bad signs indeed. Improvement is shown by his taking notice of his mother and his nurse, and by the evacuations becoming more healthy; but this is a trying time for them both, and, after all, disappointment may ensue. The candle which has been burning dimly suddenly brightens, leading to the hope that the flame will recover itself, but it suddenly splutters, and the light is gone!

Sometimes the baby is carried off by convulsions early in the disease, or some lung trouble hastens the end, or dysenteric diarrhea complicates the issue, or with wasting and exhaustion, thrush makes its appearance, and the end is not far distant.

The disease may last a week or ten days, or the in-

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* The normal temperature is 98·4° Fahr.

fant may be in perfect health one morning and the next be in the most profound state of collapse, such as I have already depicted. Should he recover, the impression made upon his constitution may be so profound that it throws his development back for weeks or months. He may, after all, succumb to a second attack, if great care be not exercised, or so much damage may have been done to his delicate bowels that he pines and fades away from lack of nourishment.

147. *Can nothing be done to prevent such a dangerous disease?*

Yes, a good deal. In the first place, never neglect a simple diarrhea, and do not look upon it as a natural vent which must not be interfered with when he is cutting his teeth. The simple diarrhea sometimes turns to inflammatory diarrhea, and the life of your babe has slipped through your fingers! Infants at the breast suffer very rarely; therefore, if you are nursing your babe, do not wean him in the hot months (June, July, August and September). Large cities, and especially crowded quarters, are much more likely to "breed" the disease than villages or rural districts; therefore, if you are living in a stuffy part of the town, send your child to some bracing ozone-impregnated sea-side resort, or zephyr-laden inland spot, in the very hot months. If this be inconvenient sterilize his milk with the greatest care (see "Sterilization," Conversation 53); all tainted milk must be ruthlessly destroyed. If you are *compelled* to wean your baby during the hot months, try to obtain a wet-nurse rather than trust to artificial food. If he is bottle-fed you must be MOST particular about his digestion, Argus-eyed, in fact. Indigestible curds may decompose in his bowels, and, being contaminated with germs, form such violent poisons that a dangerous attack of diarrhea is induced.

Please to remember that *prevention* is far better than cure.

148. *Can anything be done to relieve such a case?*

Yes. A judicious medical man will do a great deal. But, suppose you are not able to procure one, I will tell you *what to do* and *what* NOT *to do*. If he be a weakly child, open his bowels by giving a quarter of a grain of Calomel every two hours until all the curds have passed. The Calomel can be given with a *little* white sugar, and should be placed at the back of the tongue. If a strong child, at the very onset of the disease let from three to five grains (according to his age) of Calomel, mixed with an equal quantity of powdered white sugar, be administered. Then give him Prescription VIII. or IX. in Appendix. If he be at the breast, reduce the quantity of the breast milk, and supplement the deficiency by sugar barley water. If he be fed on artificial food he must be instantly deprived of milk, and fed on egg-albumin water (see Conversation 144). If there is very much sickness *all food* must be stopped for some hours, and his mouth and lips kept moistened with water during its withdrawal. You will realize, therefore, that the feeding problem is a very difficult one, and you will require an experienced medical man to rely upon.

Rub his stomach well with soap liniment three times a day, and cover it with a flannel bandage, or apply linseed meal poultices; or a flannel bag filled with hot powdered table salt, made hot in the oven, applied to the bowels will afford much comfort. A warm bath at the commencement of the disease is very efficacious, but it must be given at the *commencement*. If he has had inflammatory diarrhea for a day or two he will be too weak to have a warm bath, then instead of the bath try the following: Wrap him in a blanket, which has been previously wrung out of hot water, over which envelop him in a dry blanket. Keep him in this hot, damp blanket for half an hour; then take him out, put on his nightgown and place him in a bed, which has been,

if it be winter time, previously warmed. The above "blanket treatment" will frequently give great relief, and will sometimes cause him to fall into a sweet sleep. If the fever is high sponge him frequently with lukewarm water. He should be placed in an airy, well-ventilated apartment, the temperature of which be 60° Fahr. If dysenteric symptoms come on he should have an injection up the back passage every six hours of two or three drops of laudanum in two teaspoonfuls of warm thick starch-water. If there be signs of exhaustion he must be given fifteen drops of brandy every half-hour, and he should be kept warm by hot-water bottles in the cot, taking great care not to scald him. When he recovers *great care* will have to be exercised in returning to his milk dietary. The change will have to be made gradually, and you must gently feel your way as increasing quantities of milk food are given. Should there be any signs of a relapse instantly return to the egg-albumin water. The same precautions may be observed as recommended for a bad case of simple diarrhea. In the worst cases nourishment can only be given by teaspoonfuls, and very frequently but a teaspoonful kept down is better than two tablespoonfuls thrown up, and you must persevere and not despair. If a tablespoonful makes him sick, give him a dessertspoonful. If a dessertspoonful cause sickness let him only have a teaspoonful at a time, and let it be repeated every quarter of an hour.

From what you have been told you will have gathered that inflammatory diarrhea is a serious disease—a most grave disease. The passage of one single hour of time may bring about a change for the better or the reverse, so do not fail to send for a judicious and an experienced medical man. It is often advisable to wash out the stomach and bowel with a germ-destroying solution at the very commencement of the attack, and that you could not undertake. In severe cases the injection of a prepa-

ration of blood called serum has been the means of saving life. It requires a skilful doctor to treat a case of inflammatory diarrhea, and you must faithfully observe his directions, for much will depend on the implicit obedience of the nurse.

149. *What are the causes and symptoms of Chronic Diarrhea and sickness?*

The complaint either follows an attack of simple or inflammatory diarrhea, or an attack of measles or hooping-cough, or a condition of "weakness" of the bowels from the birth; or it is insidious in its onset.

In the latter instance, owing to *improper feeding* in every sense of the word, as to quality, quantity, or the frequency of administration, combined with a condition frequently associated with faulty hygienic surroundings, the infant gradually but surely falls a prey to indigestion and its fell consequences.

The symptoms I am about to describe are more frequently seen in infants under six months of age, when the principal nourishment, alas! has often been some starchy food. They do not happen with infants over two years of age.

Sometimes sickness is the most prominent trouble, sometimes diarrhea, or the two in combination. In the early stages the child is a martyr to indigestion; he is sick, or suffers from colic and "wind," or diarrhea, or constipation. These digestive disturbances are a fruitful source of catarrh of his stomach and his bowels. He is very fretful and irritable, and his parents obtain no rest with him night or day. His motions are often full of curds, he has "jelly" in them; or is subject to "green diarrhea." The motions then lose their natural color, they are pale, clay-colored, thin, and watery, or thick; he passes "jelly" and undigested food. He vomits curds sometimes in enormous masses, and there is much jelly-like material in the vomit. The stomach digestive juices begin to lose their power, and although

they will still readily curdle the milk, they cannot properly liquefy the curd. Even now he varies from day to day. Some days he is bright, when his bowels are not troubling him so much as usual, and he loses his irritability and fretfulness. Persistent indigestion, however, soon tells a tale. He begins to grow thin, to waste; his face is pinched and wizened; he is fast becoming a "little bag of bones," with a swollen stomach. Now, perhaps, his mother at last takes fright, and seeks the assistance of a doctor either because "everything he takes passes through him," or because she imagines he has "consumptive bowels." As time passes his motions become very numerous, like dirty brown water with "chopped spinach" in it. The wasting intensifies, he has a wan, monkey-like face, with a wrinkled brow; his skin is wrinkled, harsh, dry, and dirty-looking, his cry a feeble whine. The irritability and fretfulness have gradually become less marked in proportion to the loss of strength. His feet and hands are cold and blue, or are pale and swollen, his buttocks are red and sore, he has sores about his body, or Red-gum and Thrush may be seen in his mouth; his temperature is reduced to 97° Fahr., perhaps as low as 95° Fahr., and he is little else than a "living skeleton." Passing from bad to worse, he gradually loses consciousness, and finally dies in convulsions.

The disease lasts two or three weeks, or perhaps several months.

Owing to the long-continued catarrh of the stomach and bowels, the former becomes greatly distended, and its walls weakened, the glands that manufacture the digestive juices become destroyed, and when destruction has reached a certain point, the infant cannot recover—he dies from slow starvation. If he do recover he will almost certainly become rickety.

150. *What do you advise?*

Take preventive measures. In the first place, be most

careful about his dietary; next, never neglect a simple diarrhea; and, finally, should your child unfortunately be the subject of this disease, seek medical advice *at once.* By skilful and painstaking treatment much good may be done, and if the disease be taken in time he will recover; but recovery will be slow and tedious, and it will only result from the most judicious care and skill on the doctor's part, and implicit faith, trust, and *obedience* on yours.

The fear of "consumptive bowels" frequently harasses the anxious mother; but I may tell you that tubercular disease of the bowels is not common in infants, but, although not common, it is sometimes present, and the distinction between the two disorders can alone be made by a skilled medical man.

151. *What is Nettle-rash or Hives?*

It is a transient, superficial inflammation of the skin, and not contagious. The inflammation or eruption is marked by prominent patches or "wheals" of irregular shape, either white or red in color, and quickly disappearing. The wheals or patches resemble those produced by the "sting" of the nettle. There are two varieties—one which I am now about to describe, the other called red-gum or white-gum, which I shall next refer to.

152. *What are the causes of Nettle-rash or Hives?*

Principally errors of diet accompanying the bowel troubles in association with teething, irritation of insects, etc. (fleas, gnats, caterpillars, *e. g.*, "woolly-bears)," nettle-stings, scratching, certain drugs, certain fruits, itch, sometimes following vaccination, etc.

153. *What are the symptoms?*

The body is marked with patches of a white or red color, irregular in shape, and somewhat raised. The red patches become white in the center, and have a red halo. The patches are hot; they burn and tingle, and are very irritable. It doesn't give rise to fever

itself, but there may be fever with it, belonging to the disorder that produced it. Sometimes the appearance of the patches is preceded by severe fever, vomiting, and headache, accompanied by diarrhea and sickness, from some poisonous substance in the stomach or bowels. The eyelids may be temporarily swollen and closed, and the backs of the hands and tops of the feet also swollen.

154. *What is the treatment of Nettle-rash or Hives?*

First discover the cause. If occasioned by some slight error of diet, make the needful alteration. In older children, eating pork, shell-fish, mackerel, tinned salmon and lobster, shrimps, fruit (strawberries, for instance), may be accountable. These must be avoided, and an emetic of Ipecacuanha Wine, followed by a Calomel purge, will be useful. Irritation is to be allayed by gently RUBBING the wheals with Glycerine and Rose Water, or by gently dabbing them with a lotion of eight parts Lime Water to one part Oxide of Zinc. *Scratching makes the eruption worse.*

In India, where this affection becomes chronic, the best remedy has been found in painting the parts with a weak solution of Sulphate of Copper, or, as it is known, "Blue-stone" lotion. The proportion is a grain of Blue-stone to an ounce of water, applied with a camel's-hair brush after the bath and before going to bed. This form of nettle-rash is not common in infants.

155. *What are the symptoms and the treatment of Red-gum or White-gum?*

Red-gum or White-gum (*Lichen Urticatus*), sometimes called by nurses and mothers tooth-rash, is usually due to dyspepsia, and is frequently seen in bottle-fed babies where the food is not agreeing. Poisons generated in the bowels pass into the blood stream and irritate the skin. If there is a tooth near the surface, and the gum is red, hot, and swollen, it will be proper to lance it—not otherwise. The eruption consists of

small pimples about the size of a pin's head, which feels like little shot in the skin. There may be only a few of these, but they may be so numerous that the limbs and body, not omitting the face, are thickly sprinkled with them. They are either red or pale in color. The pale variety often appear as if they had a tiny speck of fluid at their summits, they are so translucent. Sometimes they really have a little clear or opaque fluid in them. The eruption is very irritating, and the poor little fellow scratches himself very much; you will therefore see, if you look carefully, long scratch marks on his skin, and the tips of some of the pimples have blood on them where they have been wounded by the nails. Now if you look again carefully you will see wheals. Watch the center of these wheals, and you will detect one, two, perhaps three, little pimples. The wheals disappear, and the pimples are left. Some of them have matter in them; scratching of these conveys matter to healthy parts of the body, and it "breeds" there. The disease which it most resembles when it is severe is itch. Fleas and other insects roving about the skin will bring about red-gum. Red-gum is most common during the first two years of life, and it may be a trifling complaint, or quite the reverse. It may last for two or three days or many weeks, and, in the worst cases, go on for years. The treatment consists in paying great attention to the feeding, and removing all causes of bowel irritation. The skin develops a very bad HABIT; the slightest irritation to it makes it "break out"; therefore pay particular attention to bathing and the removal of soiled linen. If woolen garments next the skin cause irritation, select another variety of woolen underwear; or if that is not successful, use silk. He must not be permitted to scratch himself, so tie his hands up at night in an extemporized Turkish glove to prevent this. The irritation of the skin must be relieved by dabbing on the lotion ordered under the

heading Nettle-rash (see Conversation 154). Sometimes these cases are very obstinate, and require much care and thought for their treatment.

156. *How would you prevent "Stuffing of the nose" in a new-born babe?*

Rub a little Vaseline on the bridge of the nose every evening just before putting him to bed. If the "stuffing" be severe, dip a sponge in hot water; ascertain that it be not too hot by previously applying it to your own face, and then put it for a few minutes to the bridge of his nose. As soon as the hard mucus is within reach, it should be carefully removed.

If the "stuffing of the nose" does not pass away, but persists, you had better call your doctor's attention to the fact, because he might have some constitutional disturbance or a growth at the back of his nose.

157. *Do you consider sickness injurious to an infant?*

Many thriving babies are, after taking the breast, frequently sick; still we cannot look upon sickness otherwise than as an index of either a disordered or of an overloaded stomach. If the child be sick, and yet be thriving, it is a proof that he overloads his stomach. A mother, then, must not allow him to suck so much at a time. She should, until he retain all he takes, lessen the quantity of milk. If he be sick and does *not* thrive, the mother should notice if the milk he throws up has a sour smell; if it has, she must first of all look to her own health; she ought to ascertain if her own stomach be out of order; for if such be the case it is impossible for her to make good milk. She should observe whether in the morning her own tongue be furred and dry; whether she has a disagreeable taste in her mouth or pains at her stomach, or heart-burn, or flatulence. If she has all or any of these symptoms, the mystery is explained why he is sick and does not thrive. She ought then to seek advice, and a medical man will soon put

her stomach into good order ; and by so doing will at the same time benefit her child.

But if the mother be in the enjoyment of good health ; if she is careful about her diet and habits (see Conversations 64 and 65 ; if she is not worried or giving way to fits of temper, she must then look to the babe himself, and ascertain if he be cutting his teeth ; if the gums require lancing ; if the secretions from the bowels be proper ; if he have *artificial* food—it being absolutely necessary to give such food—whether it agrees with him.

If the gum be red, hot, and swollen over a tooth about to be cut, let it be lanced ; if the secretion from the bowels be either unhealthy or scanty, give him a dose of aperient medicine, such as Castor Oil, or Prescripton X. in Appendix.

Do not let him overload his stomach either with breast milk or *with artificial food ;* do not allow him to bolt his food.

In bottle-fed babies the curd many be the trouble. It remains in the stomach, decomposes, and there is a quantity of "jelly" poured out by the walls of the organ. Inflammation of the stomach quickly follows indiscretions of diet. If you are giving him ordinary diluted cow's milk give him Sterilized Cream Food instead, or Gaertner's Mother Milk. If these disagree—and the stomach of an infant is a most rebellious organ when it has been played tricks with—use peptonized milk. If that does not suit he must have cream and whey, or whey alone for the time being. Should that fail, it is advisable to give him egg-albumin water, and it may be necessary to feed him with very small quantities at a time, and frequently by the teaspoonful, or, perhaps, even to withhold all food, and feed by the fundament. Washing out the stomach with a germ-destroying lotion is often very beneficial, but can only be done by a medical man.

But vomiting may be an indication that some serious

brain mischief is "brewing," or he may have some abnormality about the stomach or bowels existing from the birth, or possibly a stoppage of the bowels (see "Intussusception," Conversation 132).

"If he is suffering from hooping-cough, he will often be sick *with* his cough—sickness, as a rule, ushers in such diseases as scarlet fever, influenza, inflammation of the lungs, and so on.

158. *What are the causes, the symptoms, the prevention, and the cure of Thrush?*

Stuffing, or by giving him improper food. A child brought up *entirely*, for the first three or four months, on the breast, seldom suffers from this complaint; it is only the weakly mite that is attacked. The thrush consists of several irregular, roundish, white specks on the lips, the tongue, and the inside and the corners of the mouth, giving the parts affected the appearance of curds and whey having been smeared upon them. The patches cannot be removed easily, and if they are detached leave a raw red surface. The surrounding parts may be quite healthy, or red, dry, and inflamed, or even ulcerated; the mouth is then hot and painful, and the child is afraid to suck—the moment the nipple is put to his mouth he begins to cry. It very rarely finds its way to the stomach and bowels. It is not unusual for mothers to make the statement that the "thrush went through him to his buttocks," so the statement has some foundation in fact. The redness and excoriation of the buttocks is not due to thrush—it is owing to the stools scalding his delicate skin, and is induced by infrequent changes of wet and soiled diapers.

Should a young baby have an eruption which extends below the diapers and passes beyond the knees, and even to the feet, you should call your doctor's attention to the fact at once. His blood is possibly out of order, and he requires a tonic. It should borne in mind that nearly every child, who is sucking, has his or her

tongue white or "frosted," as it is sometimes called. The thrush may be mild or very severe. Thrush accompanies the last stages of inflammatory diarrhea and cases of chronic diarrhea and sickness. It is common within the first two years of life. If seen afterwards it is found in association with some chronic wasting disease, such as consumption or other severe illness, and then its appearance augurs badly. Thrush is due to the growth of a fungus in the mouth.

As the thrush is generally owing to improper feeding, *if the child be at the breast* do not let him be always sucking, as that will not only fret the mouth, but will likewise irritate and make sore the mother's nipple.

The best treatment is to apply Glycerine of Borax with a camel's-hair brush to the patches. If there is redness or ulceration of his mouth, give a mixture containing Chlorate of Potash, a teaspoonful for a child of one year and under, two teaspoonfuls for a child over that age (Prescription XI. in Appendix). After each feeding cleanse the mouth and gums with a weak solution of Boracic Acid, five grains to one ounce of water, applied by a piece of absorbent wool. Burn the wool when done with. This function should be performed as a *matter of routine* in all weakly infants.

Thorough ventilation of the apartment must be observed ; and great cleanliness of the vessels containing the milk should be insisted upon.

In a bad case of thrush, change of air to the country is most desirable ; the effect is sometimes, in such cases, truly magical.

If there be any redness about the fundament, always keep the part dry, and dust it with Oxide of Zinc and Starch or Sanitary Rose Powder.

See that the cooking-vessels connected with the baby's food are perfectly clean and sweet. Do not leave the purity and the goodness of the cow's milk to be judged either by a milkman or by the nurse, but taste and prove

it yourself. Keep the milk either in the dairy or in the cellar, and sterilize the food for the day as soon as the milk arrives (see "Sterilization," Conversation 53).

When the disease is *severe* it may require more active treatment; the mother had then better seek advice.

In a *severe* case of thrush, where the complaint has been brought on by *artificial* feeding, a change to a wet nurse—if the case has not been too long deferred—will effect a cure where all other means have been tried and failed. Pure air and thorough ventilation are essential to recovery.

159. *What are the different kinds of Inflammation of the Mouth?*

There are several varieties of Inflammation of the Mouth, the most common of these being the following:—

(1) Simple inflammation of the mouth. Brilliant red patches are seen on the gums, lips, cheeks, tongue, and roof of the mouth. The tongue is sometimes covered in the center with a dirty, creamy-looking fur.

(2) The occurrence of several or many small circular or oval superficial ulcers, with a dirty-white or gray base, and a bright-red border—sometimes running into one another—over the inside of the lips, cheeks, tongue, gums, and roof of the mouth. The lips often have scabs on them.

With Nos 1 and No. 2 there is fever (temperature 1000 to 103° Fahr.), fretfulness, and irritability. The mouth is hot and sore, and taking food makes the child cry. He slobbers, puts his fingers in his mouth, and the saliva is often blood-stained. The breath is offensive. The glands under the chin are swollen and tender.

Delicate children are most liable to these varieties, and irregularities of diet have been frequent with them. They occur in simple and inflammatory diarrhea; a tooth just about to be cut, with a red, hot, swollen gum, may be associated with them, and they are common

with scarlet fever and measles, hooping-cough, and quinsy, or follow these diseases. Any complaint producing a bad condition of blood favors their development. Sometimes the disease is epidemic in its nature —it may run through the house.

A contaminated milk supply has been held accountable for this. It may happen if the cows are suffering from foot and mouth disease.

(3) "A large superficial ulceration of the inner surface of the cheek opposite the teeth of the upper and lower jaw, and frequently stretching to the angle of the mouth. The edge of the tongue adjoining the teeth is often ulcerated in the same way and at the same time, though less frequently. The cheek on the affected side is found in many cases to be swollen, though not usually much altered in color, and saliva, sometimes blood-stained, dribbles from the mouth as in ordinary ulcerative stomatitis. The breath is very foul" (Dr. Carpenter).* The teeth are here at fault—they are decayed, and frequently sharp-edged. The sharp points wound the delicate mucous membrane; the wound becomes foul and unhealthy, and soon spreads from the irritation of decomposing food and fœtid discharges escaping from the teeth. Frequent applications of the tooth-brush would have prevented all this.

(4) Ulceration of the gums. The front teeth of the lower jaw are most often attacked. The corresponding gums are pale, spongy, and swollen, perhaps of a red or violet hue, and readily bleed. They ulcerate; the ulcers have a dirty-yellow or gray surface. The teeth are then exposed, will loosen and fall out. The breath is very foul, and blood-stained saliva dribbles from the mouth. The attachment of the lower lip to the gum may be ulcerated, as also the lower lip itself. Should the jaw itself be attacked, then the whole or a

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* *The British Journal of Dental Science.*

portion, of the bone may die, and serious deformity result. When there is much ulceration the fever may be high, but not otherwise. From poisoning by swallowing the foul discharges the abdomen may be distended with flatulence, and there may be considerable diarrhea with offensive motions. If the disease takes a firm hold of the child from his inability to swallow well and from the poisoning of his system he soon becomes very weak, exhausted, and emaciated, and death may result. This disease occurs in weakly children who have been badly fed, or in those who are recovering from some exhaustive disease. Tubercular children often suffer. It may be due to scurvy, and also to poisoning by Phosphorus and Mercury.

(5) Ulceration of the "bridle" of the tongue. This is *nearly* always due to fretting of the tongue against the lower teeth in case of hooping-cough; the paroxysm forcibly drives the tongue against the lower teeth.

160. *What is the treatment of Inflammation of the Mouth?*

With Nos. 1 and 2, if there are any offending materials in the bowels, give a mild aperient, such as Magnesia. Pay great attention to the feeding.

If the child be too young to gargle, wrap a piece of soft rag round a piece of stick. Dip this into the Prescription XII. (see Appendix), and well wash out the mouth every three hours during the day, and twice during the night, when opportunity permits, that is, after the child has had any nourishment, or is awake.

The internal remedy for administration is Chlorate of Potash. It is the best known at present (Prescription XIII. in Appendix.)

When the inflammation or ulceration is passing off, a preparation of Iron with Cod-liver Oil is recommended. If there be much prostration, give stimulants, broth, or beef tea. Change of air, with change of food, often effects a cure.

These diseases must not be confounded with thrush (see Conversation 150), which is due to the effects of a small parasitic fungus.

With No. 3, take the child to see a dentist. He requires to have his teeth attended to. The dentist will instruct you as to the mouth-wash you are to use.

With No. 4, consult your medical man. The disease is too serious for you to trifle with. If the teeth are *decayed* they are to be removed, as they often keep up irritation, but if they are not they must on no account be interfered with, as constitutional treatment, combined with local application to the diseased gums, will alone be required. In this case see your doctor *before* taking the child to the dentist.

With No. 5, no treatment is required. The sore will heal when the cough gets well.

161. *Is anything to be learned from the cry of an infant?*

An infant does not shed tears until he is four or five months old.

A babe can only express his wants and his necessities by a cry. He can only tell his aches and pains by a cry; it is the only language of babyhood. It is, if listened to aright, a very expressive language, although it is only the language of a cry—

"Soft infancy, that nothing canst but cry."—*Shakspeare.*

There is, then, a language in the cry of an infant, which to a mother is the most interesting of all languages, and which a thoughtful medical man can well interpret. The cry of a child to an experienced doctor is, each and all, a distinct sound, and is as expressive as the notes of the gamut. The cry of passion, for instance, is a furious cry; the cry of sleepiness is a drowsy cry; the cry of grief is a sobbing cry; the cry of an infant when roused from sleep is a shrill cry; the cry of hunger is very characteristic—it is a hoarse, passionate cry,

ceasing when hunger is appeased ; the cry of abdominal disease is a wailing cry ; the cry of teething is a fretful cry ; the cry of pain tells to the practised ear the the part of pain ; the cry of ear-ache is continuous, often screaming, the head being moved about from side to side. and the little hand being often put up to the affected side of the head ; the cry of bowel-ache or gravel in the kidney is also expressive—the cry is not so piercing as that from ear-ache, and is an interrupted, straining cry, accompanied with the drawing up of the legs to the belly ; the cry of exhaustion is a whine : the cry of bronchitis is a gruff and phlegmatic cry ; the cry of inflammation of the lungs is more a moan than a cry ; the cry of croup is hoarse, and rough, and ringing, or whispering, and is so characteristic that it may truly be called "the croupy cry" ; the cry of inflammation of the membranes of the brain is a piercing shriek, with intervals of silence—a danger signal—most painful to hear. The cry of a child recovering from a severe illness is a cross, and wayward, and tearful cry. He bursts out without rhyme or reason into a passionate flood of tears—into a "tempest of tears." Tears are always, in a severe illness, to be looked upon as a good omen, as a sign of amendment, as—

"The tears that heal and bliss."—*H. Bonar.*

Tears, when a child is dangerously ill, are rarely if ever, seen ; a cry at night for light—a frequent cause of a babe crying—is a restless cry—

"An infant crying in the night ;
An infant crying for the light ;
And with no language but a cry."—*Tennyson.*

The *absence* of crying is almost as characteristic as its quality, and is a bad sign. In lung diseases the breath is often so precious that it cannot be spared for crying. In exhausting diseases the child is often too weak to utter a sound, or too indifferent to his surroundings

from stupor to care about things mundane. In brain diseases he is unconscious, the world is dead to him, and external impressions, or those arising in his body, produce no effect on his dormant nervous centers.

162. *My child is Tongue-tied: what ought to be done for him?*

If he cannot suck from the nipple on account of it, tell your medical attendant and he will easily remove the cause. As a rule no treatment is necessary. If an operation is called for, it consists in making a very small cut across "the bridle" of the tongue, by means of a pair of thick-pointed scissors cutting "the bridle" close up to the jaw. If the cut be made too freely there may be serious bleeding. It is a simple operation, but requires knowledge of the parts, and care.

163. *What is a Mother's Mark?"*

It is a little collection of the smallest blood vessels situated just in or under the skin, and generally appearing on the face, head and neck. It is sometimes called "Port wine mark" when the skin is not elevated.

164. *What is the treatment?*

When it is small, and does not increase in size, and is not a disfigurement, it should be left alone.* If it tends to spread, some surgical interference is necessary.

165. *My child snores very much at night or when asleep: what is the cause?*

He is suffering from Enlarged Tonsils. When he lies down the tonsils—there is one on each side of the throat—almost close up the passage along which the air has to travel. It is the effort of the air to pass the block made by the tonsils that causes the snoring. Enlargement of the tonsils is due to repeated inflammation of the tonsils, to diphtheria, scarlet fever, hooping-cough, measles, struma, etc. The tonsils are sometimes enlarged at birth. The voice is thick. There may be slight deafness.

* It often disappears without any treatment during the first few months of life.

Sometimes there is a troublesome irritative cough and difficulty of breathing, and he often has sore throat. The child's growth may be stunted from this cause, and he becomes pigeon-breasted. Enlarged tonsils are nearly always accompanied by adenoid vegetation.

166. *What is the treatment?*

If the enlargement is not great and the disease recent, give him an abundance of nourishing food. Guard him against cold. Paint the tonsils twice a day with Tincture of Iodine or Glycerine of Tannin. Administer Iron and Cod-liver Oil. Raise the tone of the child's health by salt-water baths, open-air exercise, and good food.

If there be difficulty in breathing, it will be necessary to remove part of the tonsils, and the tonsils should be removed if they do not yield to the treatment suggested.

167. *What are Adenoid Vegetations, and what are their symptoms?*

At the back of the nose, above the "swallow," out of sight, there is a small tonsil. When this enlarges it blocks up the back of the nose, and the child cannot breathe through it. He suffers from FREQUENT colds in the head, sometimes from bleeding at the nose; the nostrils are often small and ill-developed, and when there is "corruption" coming from them, the upper lip and face often becomes "scabby." Ear-ache troubles him; he becomes deaf, or has a discharge of matter from the ear. Ear troubles from this complaint often arise which impair his hearing for life. Perhaps he dribbles on the pillow at night. Headache is not uncommon. Sometimes these children suffer from pain about the navel —they are frequently poor, weak, bloodless things, troubled with indigestion. They become stunted in their growth and pigeon-breasted. They may wet the bed at night, owing to the improperly aërated blood supply passing to their nervous centers. When the children are under two years of age the difficulty of

sucking properly, colds in the head, snoring at night, and, perhaps, "child-crowing" attract attention. Later on, when much mischief has been done, the face alters, it elongates, the arch of the mouth is high, the teeth are crowded together, the child has a stupid, vacant, silly look, he talks "through his nose," and if he be deaf, in addition, it seriously handicaps him at his school. Sometimes these children have attacks like asthma. It is a *very common* disease, and the growth may be found within the first few months of life. *Adenoid vegetations are often present without enlargement of the tonsils.*

Adenoid vegetations are amongst the greatest inflictions falling to the lot of any poor child. They must be removed *at once.* When they have been taken away the child's health will improve in a marvelous manner, and he will grow and flourish exceedingly. One dear little child that I knew used to be punished for making snorting noises at the table and not closing her mouth, until one day, happening to take luncheon with the parents, I saw the performance, saved her from further punishment, and, later on, cured her of her "bad habit."

168. *Pillows are so apt to slip down, what is the best means of keeping them in position?*

On one side of the pillow sew three curtain rings. By this means you will be able to tie the pillow in any required position, and thus keep it in place instead of its shifting all over the bed uselessly.

169. *If an infant be delicate, have you any objections to his having either veal or mutton broth to strengthen him?*

Animal broths are sometimes ordered by the doctor in severe cases of diarrhea when the administration of milk is harmful. Under similar instruction beef juice or beef soup, or raw meat, are also valuable additions to milk in children over seven months of age. Animal preparations are given when there is evidence of want of muscle and bone development, and anemia. Prepared in the way

directed they possess anti-scurvy powers. Their albumens are digested with greater ease than those of milk or vegetables. They are only required under special conditions, and *on no account* must be added to the ordinary dietary of modified cow's milk or modified cow's milk and cereals, unless specially ordered by the doctor. The yolk of one egg a day is also of service; it possesses the advantage of being sterile when the shell is cracked, and it is very rich in phosphorus.

I give you directions for the above preparations.

Beef Juice.—Chop up very finely a quarter of a pound of raw rump-steak; place in a bottle; add a little salt; just cover with water; put in the ice chest; allow it to stand eight hours; squeeze through muslin.

Dose.—A teaspoonful to a tablespoonful. To be given raw and placed in the bottle *just before feeding.* It must be made fresh daily. Heating will destroy its virtues. Keep on ice.

Beef Soup.—Take a quarter of a pound of the best lean rump-steak; cut very fine; place in a bottle with a quarter of a pint of water and two drops of Hydrochloric Acid; stand on ice all night; set in a pan of water at 110° Fahr. for two hours; strain; use the filtrate; keep on ice.

Dose.—From a teaspoonful to a tablespoonful, and it is to be placed in the bottle *just before feeding.* Do not heat it. Make it fresh every day. Raw meat is also ordered by the doctor in cases of chronic diarrhea and wasting. It is very nourishing.

Raw meat.—Take a piece of beef-steak; scrape; collect the scrapings; reject the stringy pieces; pound; rub through a hair-sieve; add a little salt. Keep in the ice-chest, and prepare fresh daily.

Dose.—From a teaspoonful to a tablespoonful.

170. *My baby's ankles are very weak: what do you advise to strengthen them?*

Well rub the legs from the ankles up to the knees for

ten minutes night and morning. Use Olive Oil for the process.

Do not let him be put on his feet early; but allow him to crawl, and sprawl, and kick about the floor, until his body and ankles become strong.

The child probably has Rickets. Rickety children are often fat, and fat children are heavy. If you place him on his feet too early, the weight of his body will be too much for his tender bones, and they will bend. Consult your doctor.

Do not, on any account, without having competent medical advice on the subject, use iron instruments, or mechanical supports of any kind.

171. *Sometimes there is a difficulty in restraining the bleeding of leech bites: what is the best method?*

Stopping of leech bites.—The simplest and most certain way, till the proper assistance is obtained, is the pressure of the finger, with nothing intervening. It *cannot* bleed through that.

172. *Supposing a baby to be poorly, have you any advice to give to his mother us to her own management?*

She must endeavor to calm her feelings, or her milk will be disordered, and she will thus materially increase his illness. If he be laboring under any inflammatory disorder, she ought to refrain from the taking of beer, wines, and spirits, and from all stimulating food; otherwise she will feed his disease.

If an infant from his birth be properly managed,—if he have an abundance of fresh air for his lungs,—if he have plenty of exercise for his muscles (by allowing him to kick and sprawl on the floor),—if he have a good swilling or sousing of water for his skin,—if, during the *early* months of his life, he have nothing but the mother's milk for his stomach, he will require very little medicine—the less the better! He does not want his stomach to be made into a chemist's shop! The grand thing is *not* to take every opportunity of ad-

ministering physic, but of using every means of withholding it! And if physic be necessary, not to doctor him yourself, unless it be in extreme and urgent cases, but to employ an experienced medical man. A babe who is always, without rhyme or reason, being physicked, is sure to be puny, delicate, and unhealthy, and is ready at any moment to drop into an untimely grave!

A healthy child *never* requires drugging with opening physic; costiveness is brought on by bad management. Aperient medicines to a healthy child are so much poison! If you once begin to give aperients, you will find a difficulty in discontinuing them. Finally, I will only say with *Punch*,—"Don't."

CONCLUDING REMARKS ON INFANCY.

173. In concluding the first part of our subject—Infancy—I beg to remark: there are five things essentially necessary to a babe's well-doing, namely:—(1) plenty of water for his skin; (2) plenty of fresh genuine milk, modified to suit his digestive capabilities, for his stomach (if possible giving him his mother's milk during the first six, eight, or nine months or more of his existence); (3) plenty of pure air for his lungs; (4) plenty of sunlight for his blood; (5) plenty of sleep for his brain. These are the FIVE GRAND ESSENTIALS for an infant: without an abundance of one and all of them, perfect health is utterly impossible! Perfect health! the greatest earthly blessing, and more to be coveted than aught else beside! There is not a more charming sight in the universe than the beaming face of a perfectly healthy babe—

> "His are the joys of nature, his the smile,
> The cherub smile, of innocence and health."—*Knox.*

PART II.

CHILDHOOD.

The child is the father of the man.—WORDSWORTH.
Bairns are blessings.—SHAKESPEARE.
These are MY *jewels!*—CORNELIA.

ABLUTION.

174. *At twelve months old do you still recommend a child to be* PUT IN HIS TUB *to be washed?*

Certainly I do, that his skin may be well and thoroughly cleansed. If it be summer time, the water should be used cold; if it be winter, a dash of warm must be added, so that it may be of the temperature of new milk; but do not use *very warm* water. The head must be washed (but not dried) before he be placed in a tub; then, putting him in the tub (containing the necessary quantity of water, and washing him as previously recommended),* a large sponge should be filled with the water and squeezed over his head, so that the water may stream over the whole surface of his body. Just before taking him out of his bath, a jugful of water should be poured over and down his loins; all this ought rapidly to be done, and he must be quickly dried with soft towels, and then expeditiously dressed. For the washing of your child, I recommend you to use Castile Soap or Glycerine Soap in preference to any others. They are more pure and less irritating, and hence do not injure the texture of the skin.

* See Infancy—Ablution.

Take care that the soap does not get into the eyes, or it might produce irritation and smarting.

175. *Some mothers object to a child's* STANDING *in the water.*

If the head be wetted before he be placed in the tub, and he be washed as above directed, there is no objection to it. But he must not be allowed to remain in his tub more than five minutes.

176. *Does not washing the child's head, every morning, make him more liable to catch cold, and does it not tend to weaken his sight?*

It does neither the one nor the other; on the contrary, it prevents cold, and strengthens his sight; it cleanses his scalp, prevents scurf, and, by that means, causes a more beautiful head of hair. The head, after each washing, ought to be well brushed with a soft brush. The brushing causes a healthy circulation of the scalp.

177. *If the head, notwithstanding the washing, be scurfy, what should be done?*

After the head has been well dried, let a little Ammoniated Mercury Ointment, one drachm to an ounce of Vaseline, be well rubbed, for five minutes each time, into the roots of the hair.

178. *Do you recommend a child to be washed* IN HIS TUB *every night and morning?*

No; once a day is quite sufficient; in the morning in preference to the evening; unless he be poorly, then evening instead of morning; as, immediately after he has been washed and dried, he can be put to bed.

179. *Ought a child to be placed in his tub whilst he is in a state of perspiration?*

Not whilst he is perspiring *violently,* or the perspiration might be checked suddenly, and ill consequences would ensue; *nor ought he to be put in his tub when he is cold,* or his blood would be chilled, and would be sent from the skin to some internal vital part, and thus would be likely to light up inflammation—probably of

the lungs. His skin, when he is placed in his bath, ought to be moderately and comfortably warm ; neither too hot nor too cold.

180. *When the child is a year old, do you recommend cold or warm water to be used?*

If it be winter, a little warm water ought to be added, so as to raise the temperature to that of new milk. As the summer advances, less and less warm water is required, so that, at length, none is needed.

181. *If a child be delicate do you recommend anything to be added to the water which may tend to brace and strengthen him?*

Yes ; a handful of table salt, or sea-salt, should be previously dissolved in a quart jug of *cold* water. Just before taking the child out of his morning bath let the above be poured over and down his back and loins, holding the jug, while pouring the contents on the back, a foot distant from him in order that it may act as a kind of douche bath.

182. *Do you recommend the child, after he has been dried with the towel, to be rubbed with the hand?*

I do, as friction encourages the cutaneous circulation and causes the skin to perform its functions properly. The back, the chest, the bowels, and the limbs are the parts which ought to be well rubbed.

CLOTHING.

183. *Have you any remarks to make on the clothing of a child?*

Children, boys and girls, especially if they be delicate, ought always to wear high dresses up to their necks. The exposure of the upper part of the chest (if the child be weakly) is dangerous. It is in the *upper* part of the chest, in the region of the collar bones, that the lungs are most exposed. The clothing of a child, more especially about the chest, should be large and full in every part, and be free from tight strings, so that the circulation of the blood may not be impeded, and that

there may be plenty of room for the full development of the rapidly growing body.

His frock, or tunic, ought to be of woolen material—warm, light, and porous—in order that the perspiration may rapidly evaporate.

Tight bands, or *tight* belts around the waist of a child are very injurious to health ; they crib in the chest, and thus interfere with the rising and falling of the ribs—so essential to breathing. *Tight* hats ought never to be worn ; by interfering with the circulation they cause headaches. Nature delights in freedom, and resents interference !

184. *What parts of the body in particular ought to be kept warm ?*

The chest, the bowels, and the feet should be kept comfortably warm. We must guard against an opposite extreme, and not keep them too hot. The head alone should be kept cool, on which account I do not approve either of night or day caps.

185. *What are the best kinds of hat for a child ?*

When he is out and about, a loose-fitting straw hat, which will allow the perspiration to escape. It should have a broad brim to screen the eyes. A sunshade, that is to say, a seaside hat—a hat made of cotton—with a wide brim to keep off the sun, is also an excellent hat for a child ; it is very light and allows a free escape of perspiration. It can be bought ready made at a baby-linen warehouse.

A knitted or crocheted hat, with woolen rosettes to keep the ears warm, makes a nice and comfortable winter's hat for a child. It is also a good hat for him to wear while on a long journey.

It is not advisable to cover a child's head with felt, or any thick impervious material, as the perspiration cannot possibly escape through it.

A child should not be permitted to be in the glare of

the sun without his hat, as a sunstroke or some injury to the brain might ensue.

186. *Have you any remarks to make on keeping a child's hands and legs warm, when in the winter time he is carried out?*

When a child either walks or is carried out in winter weather, be sure and see that both his hands and legs are well protected from the cold. There is nothing better for this purpose than woolen gloves, and woolen stockings coming up over the knees.

187. *Do you approve of a child wearing a flannel dressing-gown?*

He frequently throws the clothes off him, and has occasionally to be taken up in the night, and if he has not a flannel gown on, is likely to catch cold, therefore I recommend it to be worn. The usual calico night-gown should be worn *under* it.

188. *Do you advise a child to be* LIGHTLY *clad, in order that he may be hardened thereby?*

No. It is an ascertained fact that more children of the poor die who are thus lightly clad than of those who are properly defended from the cold. Again, what holds good with a young plant is equally applicable to a young child; and we all know that it is ridiculous to think of unnecessarily exposing a tender plant to harden it. If it were thus exposed, it would wither and die.

189. *If a child be delicate, if he have a cold body, or a languid circulation, or if he be predisposed to inflammation of the lungs, do you approve of his wearing flannel- instead of linen shirts?*

I do; as flannel tends to keep the body at an equal temperature, thus obviating the effect of the sudden changes of the weather, and promotes by gentle friction the cutaneous circulation, thus warming the cold body and giving an impetus to the languid circulation. *Fine* flannel ought to be worn, and be changed as frequently as the usual shirts.

If a child has an attack of bronchitis or of inflammation of the lungs, or if he has just recovered from scarlet fever, by all means, if he has not previously worn flannel, *instantly* let him begin to do so. *This is important advice, and ought not to be disregarded.*

Scarlet flannel is now much used instead of *white* flannel; and as scarlet flannel has a more comfortable appearance, and does not shrink so much in washing, it may be substituted for the white. The material must be of the best quality, or the dye will come off.

190. *Have you any remarks to make on the stockings and shoes of a child? and on the right way of cutting the toe-nails?*

He ought, during the winter, to wear lamb's-wool stockings that will reach *above* the knees, and flannel drawers that will reach a few inches *below* the knees. It is of the utmost importance to keep the lower extremities comfortably warm. It is really painful to see how many mothers expose the bare legs of their little ones to the frosty air, even in the depths of winter.

Be particular that the sock, or stocking, fits nicely—that it is neither too small nor too large. If it be too small, it will bind up the toes unmercifully, and make one toe to ride over the other, and thus render the toes perfectly useless in walking; if it be too large, it will be necessary to lap a portion of the sock, or stocking, either under or over the toes, and will thus press unduly upon them, and give pain and annoyance. If the toes have full play, they, as it were, grasp the ground, and greatly assist in locomotion—if they are cramped up, they cannot possibly do so. Be careful, too, that the toe-part of the sock or stocking be not pointed; let it be made square in order to give room for the toes. "At this helpless period of life the delicately feeble outspreading toes are wedged into a narrow-toed stocking, often so short as to double in the toes, diminishing the length of the rapidly growing foot. It is next, perhaps, tightly

laced into a boot of less interior dimensions than itself; when the poor little creature is left to sprawl about with a limping, stumping gait, thus learning to walk as it best can, under circumstances the most cruel and torturing imaginable." *

Garters ought not to be worn, as they impede the circulation, waste the muscles, and interfere with walking. Suspenders are to be provided.

See that the boots or shoes of your child be sound and whole; for if they be not so, they will let in the damp, and if the damp, disease and perhaps death. "If the poor would take better care of their children's feet, half the infantile mortality would disappear. It costs very little to put a piece of thick felt or cork into the bottom of a boot or shoe, and the difference is often between that and the doctor's bill, with, perhaps, the undertaker's besides."

Do not allow your child to wear *tight* shoes. They cripple the feet, causing the joints of the toes, which ought to have free play, and which would assist in walking, to be, in a manner, useless; they produce corns and bunions, and interfere with the circulation of the foot. A shoe ought to be made according to the shape of the foot—rights and lefts are therefore desirable. The toe-part of the shoe must be made broad, so as to allow plenty of room for the toes to expand, and that one toe cannot overlap another. Be sure then that there be no pinching and no pressure. In the article of shoes you ought to be particular and liberal; pay attention to have nicely fitting ones, and let them be made of soft leather, and throw them on one side the moment they are too small. It is poor economy, indeed, because a pair of shoes be not worn out, to run the risk of incurring the above evil consequences.

A shoe for a child ought to be made with a narrow strap over the instep, and with button and button-

* *The Foot and its Covering.* By James Dowie. London.

hole ; if it be not made in this way, the shoe will not keep on the foot. Shoes are preferable to boots for healthy children. Boots should be adopted at this age only after medical consultation and consent.

It is impossible for either a stocking or a shoe to fit nicely unless the toe-nails be kept in proper order. In cutting the toe-nails there is, as in everything else, a right and a wrong way. The *right* way of cutting a toe-nail is to cut it straight—in a straight line. The *wrong* way is to cut the corners of the nail—to round the nail, as it is called. This cutting the corners of the nails often makes work for the surgeon. It frequently produces "growing-in" of the nail, which sometimes necessitates the removal of the nail or a part of it.

191. *At what time of the year should a child leave off his winter clothing?*

Winter clothing ought not to be left off until the spring be far advanced. It is far better to be on the safe side, and to allow the winter clothes to be worn until the end of May. The old adage is very good, and should be born in mind—

"Button to chin
Till May be in ;
Ne'er cast a clout
Till May be out."

192. *Have you any general remarks to make on the dressing of children?*

Children are frequently dressed like mountebanks, with feathers, and furbelows, and finery ; the boys go barelegged ; the little girls are dressed like women. Dress is made with them, at a tender age, and when first impressions are the strongest, a most important consideration. They are thus taught to be vain and frivolous. Let children be dressed as children, not as men and women. Let them be taught that dress is quite a secondary consideration. Let health, and not fashion, be the first, and we shall then have, with God's

blessing, blooming children, who will in time be the pride and strength of Columbia.

DIET.

193. *At* TWELVE *months old how shall I feed my child?*

The bottle must now be gradually discarded, and he is to be accustomed to the digestion of undiluted cow's milk instead of modified cow's milk, which has hitherto been given (see Conversation 58.) Scrutinize the motions whilst the change is being made, and watch for curds in them. If these appear the milk must be temporarily diluted with water or barley water, and he is to be accustomed *by degrees* to the digestion of pure cow's milk. The daily quantity of milk, whether taken in fluid form, or used in the preparation of gruels or farinaceous puddings, is *not to exceed* two pints.

The following table is to be studied :—

7.30 A.M., Breakfast, Milk, 8 ozs.	Gruels are to be made with milk from either oats, barley or maize ground whole (see Conversation 60). He may take oatmeal or maize porridge, made with milk, and be given plain boiled water to drink with them.
10.30 A.M., Luncheon.	Milk, 8 ozs., a little bread and butter.
1.30 P.M.. Dinner.	Stale bread crumbs and red gravy from the joint or beef-tea* (a teacupful), or meraly mashed potato with the same gravy or beef-tea, or a lightly boiled or poached egg with stale bread crumbs, or mashed potato, with farinaceous puddings, such as rice, sago, tapioca, semolina, or a custard (a tablespoonful). Milk and water to drink.
4.30 P.M., Tea, Milk, 8 ozs.	With or without bread, or a rusk, or a sponge cake. A little bread and butter.
8.30 P.M., Supper, Milk, 8 ozs.	Either alone, or made with any of the cereals mentioned under breakfast.

* Beef-tea, as ordinarily made, is not nutritious. Nutritious

The milk should be sterilized as soon as it is received, and kept in a cool place. The baby should now be weighed every fortnight, and a record kept of the weights.

194. *At* EIGHTEEN *months old, have you any objection to a child having meat?*

At eighteen months of age he may have meat,—chicken and turkey are good. The meat requires to be carefully minced. When he digests chicken well, butcher's meat may be given to him, such as a grilled, underdone, lean chop thoroughly minced. Green vegetables are not to be omitted from the dietary; and well-boiled cauliflower, or spinach are to be given in moderation, apple sauce once a day. The daily allowance of milk must *not exceed* two pints.

7.30 A.M., Breakfast.	Milk, or cocoa made with milk, and bread and butter, or milk porridge, with a little cream, or Syrup or bread and milk.
10.30 A.M., Luncheon.	Milk and bread and butter, or a plain biscuit.
1.30 P.M., Dinner.	Meat, a tablespoonful of beef-tea, or a lightly boiled egg, with potato, cauliflower, or spinach, with farinaceous pudding or custard.
4.30 P.M., Tea.	Cocoa or milk, with bread and butter, or a stale sponge cake.
Bedtime.	A little milk and a plain biscuit, or a piece of bread and butter.

195. *As you are so partial to puddings for a child, which do you consider the best for him?*

He ought, every day, to have a pudding for his dinner —either rice, sago, tapioca, suet-pudding, batter-pud-

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beef-tea is made by adding a pint of cold water, in which ten drops of diluted hydrochloric acid have been instilled, to 1 lb. of finely chopped lean beef. Let it stand for three hours, stirring the while, and finally simmer for twenty minutes. Mutton, veal, and chicken can be treated in the same way.

ding, mixed with crumbs and bread, and gravy—free from grease. A well-boiled suet-pudding, with plenty of suet in it, is one of the best puddings he can have; it is, in point of fact, meat and farinaceous food combined, and is equal to, and will oftentimes prevent, the giving of cod-liver oil. Before cod-liver oil came into vogue suet boiled in milk was *the* remedy for a delicate child. He may, occasionally, have fruit.

The objection to fruit pies and puddings is, that the pastry is often too rich for the delicate stomach of a child. There is certainly no objection to the fruit—cooked fruit being, for a child, most wholesome. An excellent suggestion is "*to prepare fruit for children, a far more wholesome way than in pies and puddings* is to put apples sliced, or plums, currants, gooseberries, etc., into a stone jar, and sprinkle among them as much sugar as necessary. Set the jar in an oven or on a hearth, with a teacupful of water to prevent the fruit from burning; or put the jar into a saucepan of water till its contents be perfectly done. Slices of bread or some rice may be put into the jar, to eat with the fruit."

Pudding ought to be given *after* and not *before* his meat and vegetables; if you give him pudding before his meat, he might refuse to eat meat altogether. By adopting the plan of giving puddings every day, your child will require *less* animal food; *much* meat is injurious to a young child. But do not run into an opposite extreme. A little meat ought, every day, to be given, *provided he has cut the whole of his first set of teeth;* until then, meat every *other* day will be often enough.

196. *As soon as a child has cut the whole of his first set of teeth, what ought to be his diet? What should be his breakfast?*

He can then have scalding hot new milk poured on sliced bread, with a slice or two of bread and butter

to eat with it. Butter, in moderation, is nourishing, fattening, and wholesome, and tends to keep the bowels regular. These facts should be borne in mind, as some mothers foolishly keep their children from butter, declaring it to be too rich for their children's stomachs! New milk should be used in preference either to cream or to skim-milk. Cream, as a rule, is too rich for the delicate stomach of a child, and skim-milk is too poor when robbed of the butter which the cream contains. But give cream and water where new milk does not agree; but never give skim-milk. *Skim*-milk produces costiveness, and necessitates the frequent administration of aperients. Cream, on the other hand, regulates and tends to open the bowels.

When a child has costive bowels there is nothing better for his breakfast than well-made and well-boiled oatmeal stir-about, which ought to be cooked with milk fresh from the cow. Scotch children scarcely take anything else, and a finer race is not in existence; and, as for physic, many of them do not even know either the taste or the smell of it! You will find Higgins' or the Quaker Pure Oatmeal to be very pure, and sweet, and good. Stir-about is truly said to be—

"The halesome parritch, chief of Scotia's food."—*Burns.*

Phillips' Digestible Cocoa, made with fresh milk, slightly sweetened with lump sugar, is an admirable food for a delicate child. Bread and butter should be eaten with it.

197. *Have you any remarks to make on cow's milk as an article of food?*

It is an indispensable article of diet for the young; being most nourishing, wholesome, and digestible. The finest and the healthiest children are those who, for the first four or five years of their lives, are fed *principally* upon it. There is no substitute for it. To prove the fattening and strengthening qualities of milk, look only

at a young calf who lives on milk, and on milk alone! He is a Samson in strength, and is "as fat as butter;" and all young things if they are in health are fat!

Milk, then, contains every ingredient to build up the body, which is more than can be said of any other known substance. A child may live entirely, and grow, and become both healthy and strong, on milk, and on milk alone, as it contains every constituent of the human body. Milk is animal and vegetable—it is meat and bread—it is food and drink—it is a fluid, but as soon as it reaches the stomach it becomes a solid *—solid food; it is the most important and valuable article of diet for a child in existence. "Considering that milk contains in itself most of the constituents of a perfect diet, and is capable of maintaining life in infancy without the aid of any other substance, it is marvelous that the consumption of it is practically limited to so small a class; and not only so, but that in sick-rooms, where the patient is surrounded with every luxury, arrow-root, and other compounds containing much less nutriment, should so often be preferred to it."—*The Times.*

Do not let me be misunderstood. I do not mean to say but that the mixing of farinaceous food with milk is an improvement, in some cases a great improvement; but still I want to impress upon you the fact that a child might live and thrive, and that for a lengthened period, on milk, and on milk alone!

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* How is milk, in the making of cheese, converted into curds? By rennet. What is rennet? The juice of a calf's maw or stomach. The moment the milk enters the human maw or stomach the juice of the stomach converts it into curds—into solid food, just as readily as when it enters a calf's maw or stomach, and much more readily than by rennet, as the *fresh* juice is stronger than the *stale*. An ignorant mother often complains that because, when her child is sick, the milk curdles, that it is a proof that it does *not* agree with him! If, at those times, it did not curdle, it would, indeed, prove that his stomach was in a wretchedly weak state; she would then have abundant cause to be anxious.

A dog will live and fatten for six weeks on milk alone; while he will starve and die in a shorter period on strong beef-tea alone!"

The only way to ensure good milk is, to go to a respectable cow-keeper, and let him be made to thoroughly understand the importance of your child having *genuine* milk, and that you are willing to pay a fair remunerative price for it. If you have to pay one penny or even two a quart more for *genuine* milk, it is one of the best investments that you can make. Cheap and inferior milk might well be called cheap and nasty. Inferior or adulterated milk is the very essence, the conglomeration of nastiness; and, moreover, is very poisonous to a child's stomach. The quality of milk can easily be ascertained by an ingenious glass instrument called a "lactometer." It ought to be in every careful household.

Young children, as a rule, are allowed to eat too much meat. It is a mistaken notion of a mother that they require so much animal food. If more milk were given and less meat, they would be healthier, and would not be so predisposed to disease, especially to diseases of debility, and to skin disease.

I should strongly recommend you, then, to be extravagant in your milk score. Each child ought, in the twenty-four hours, to take a quart of good, fresh, new milk. It should be given in various ways—as bread and milk, rice-puddings, milk and different kinds of farinaceous food, stir-about, plain milk, cold milk, hot milk, any way, and every way, that will please his palate, and that will induce him to take an abundant supply of it. The "advice" I have just given you is of paramount importance, and demands your most earnest attention.

198. *But suppose my child will not take milk, he having an aversion to it, what ought to be done?*

Boil the milk, and sweeten it to suit his palate. After he has been accustomed to it for a while, he will

then probably like milk. Gradually reduce the sugar, until at length it be omitted. A child will often take milk this way, whereas he will not otherwise touch it.

If a child will not drink milk, he *must* eat meat. It is absolutely necessary that he should have either the one or the other; and, if he have cut nearly all his teeth, he ought to have both meat and milk—the former in moderation, the latter in abundance.

199. *Supposing milk should not agree with my child, what must then be done?*

Milk, either boiled or unboiled, almost always agrees with a child. If it does not, it must be looked upon as the exception, and not as the rule. I would, in such a case, advise Gaertner's Mother Milk.

200. *Can you tell me of a way to prevent milk, in hot weather, from turning sour?*

Let the jug of milk be put into a crock, containing ice, either in the dairy or in the cellar. The ice should be kept wrapped either in flannel or in blanket, in a cool place, until it be wanted (see "Sterilization," Conversation 53).

201. *Is it necessary to give a child luncheon?*

If he want anything to eat between breakfast and dinner, let him have a glass of milk and a little bread and butter; and if he have eaten very heartily at dinner, and, like Oliver Twist, "asks for more!" give him, to satisfy his craving, a piece of *dry* bread. He will never eat more of that than will do him good, and yet he will take sufficient to satisfy his hunger, which is very important.

202. *What ought to be his dinner when he is* TWO AND A HALF *years old?*

He should now have meat—either mutton, beef, or fish, or poultry—daily, cut up very small, and mixed with mealy, *mashed* potato and gravy. He ought *always* to be accustomed to eat salt with his dinner. Let a mother see that this advice is followed, or evil

consequences will inevitably ensue. Let him be closely watched, to ascertain that he well masticates his food, and that he does not eat too quickly ; for young children are apt to bolt their food.

203. *Have you any objections to pork for a change?*

Yes. It is a rich, gross, and therefore unwholesome food for the delicate stomach of a child. I have known it, in several instances, produce violent pain, sickness, purging, and convulsions. If a child be fed much upon such meat it will be likely to produce "breakings-out" on the skin.

204. *Do you object also to bacon?*

No ; I look upon bacon as a valuable food for delicate children at the breakfast meal. Indeed, it acts like cod-liver oil in strengthening the system, and also as an aperient, but he should not be given this until he is four years of age.

205. *Should an addition then be made to his dietary when he is* FOUR *years of age?*

Yes ; he may have fat bacon for his breakfast, or poached or scrambled eggs, or a little white fish.

206. *Do you approve of veal for a child?*

The objection to veal is, that it is more difficult of digestion than either mutton or beef. All young meats are harder of digestion than meats of maturity. Thus mutton is more digestible than lamb, and beef than veal.

207. *Do you disapprove of salted and boiled beef for a child?*

If beef be *much* salted, it is hard to digest, and therefore ought not to be given ; but if it have been but *slightly* salted, then, for a change, there will be no objection to a little. There is no necessity in the *winter* time to *salt* meat intended for boiling. Boiled *unsalted* meat makes a nice change for a child's dinner. Salt *must* be eaten with it.

208. *But suppose there is nothing on the table that a child may with impunity eat?*

He should then have either a grilled mutton chop, or a lightly-boiled egg ; indeed, the latter, at any time, makes an excellent change. There is great nourishment in an egg. It contains iron, which is good for his blood, and phosphorus for his bones ; it will not only strengthen the frame, but it will give animal heat as well. These qualities of an egg are most valuable ; indeed, essential for the due performance of health. Many articles of food contain one qualification, not both ; hence the egg is admirably suitable for a child's *occasional* dinner.

209. *Are potatoes unwholesome food for a child?*

New ones are; but old potatoes, well cooked and mealy, are the best vegetable he can have. They ought to be *well mashed,* as I have known lumps of potatoes cause convulsions.

210. *Do you approve of any other vegetables for a child?*

Occasionally ; either asparagus, or broccoli, or cauliflower, or turnips, or string beans cut up fine, may with advantage be given. Also green peas, provided they be young and thoroughly well boiled, and mashed with the knife on the plate. Undercooked and unmashed peas are not fit for a child's stomach ; there is nothing more difficult of digestion than peas not properly cooked. It is important, too, to mash them, even if they be well done, as a child generally bolts peas whole, and they pass through the alimentary canal without being in the least digested.

211. *Might not a mother be too particular in dieting her child?*

Certainly not. When we take into account that the food we eat is converted into blood ; that if the food be good the blood is good ; and that if the food be improper or impure, the blood is also impure ; and, moreover, when we know that every part of the body is built up by the blood, we cannot be considered to be too

particular in making our selection of food. If indigestible or improper food be taken into the stomach, the bowels will be disordered. I am no advocate for a child having the same food one day as another—certainly not. Let there be variety, but let it be *wholesome* variety. Variety in a child's food is necessary. This does not apply to an infant's food.

212. *What ought a child to drink with his dinner?*

Toast and water, or, if he prefer it, plain water *properly filtered* and boiled. Let him have as much as he likes. If you give him water to drink, there is no fear of his taking too much; Nature will tell him when he has had enough. Be careful of the quality of the water, and the source from which you procure it. Spring water from a moderately deep well is the best. If it come from a land spring, it is apt, indeed is almost sure, to be contaminated by drains, &c.

Some parents are in the habit of giving their children beer with their dinner—making them live as they live themselves! This practise is absurd, and fraught with great danger! No good end can be obtained by it; it will *not* strengthen so young a child; it will, on the contrary, act injuriously upon his general health.

213. *What ought a child who has cut his teeth, to have for his supper?*

Some milk and a plain biscuit, or a little bread and butter. He should sup at six o'clock.

214. *Have you any general remarks to make on a child's meals?*

I recommended a great sameness in an *infant's* diet; but a *child's* meals, his dinners especially, ought to be varied. For instance, do not let him have day, after day, mutton; but ring the changes on mutton, beef, poultry, game, which must be fresh, and fish—sole or cod. Let there be also a change in the manner of cooking it; let the meat sometimes be roasted or grilled; let it at other times be boiled. With regard to vege-

tables, potatoes—*mashed* potatoes—ought to be his staple vegetables; but, every now and then, cauliflower, asparagus, turnips, and string beans, should be given.

With respect to puddings, vary them: rice, one day; suet, another; batter, a third; tapioca, a fourth; or even occasionally he might have apple, or gooseberry, or rhubarb with boiled rice.

Variety of diet, then, is *good for a child:* it will give him muscle, bone, and sinew; and will tend to regulate his bowels.

But do not stuff a child—do not press him, as is the wont of some mothers, to eat more than he feels inclined. On the contrary, if you think that he is eating too much—that he is overloading his stomach—and if he should ask for more, then, instead of giving him either more meat or more pudding, give him a piece of dry bread. By doing so you may rest assured that he will not eat more than is absolutely good for him.

215. *If a child be delicate, is there any objection to a little wine to strengthen him?*

Wine ought not to be given to a child unless it be ordered by a medical man: it is even more injurious than beer. Nearly *all* wines are *fortified* (as it is called) with alcohol. If you give wine, it is, in point of fact, giving diluted alcohol. Alcohol acts as a poison to a child.

216. *Suppose a child suddenly to lose his appetite, is any notice to be taken of it?*

If he cannot eat well, depend upon it there is something wrong about the system. If he be teething, look well to his mouth and gums. If his gums be not inflamed and no tooth appears near, look well to the state of the bowels; ascertain that they be sufficiently opened, and that the stools be of a proper consistence, color, and smell. If they are not healthy, give a dose of aperient medicine. If the gums be cool, and the bowels be right, and his appetite continue bad, call in medical aid.

A child asking for something to eat, in a severe illness, is frequently the first favorable symptom ; we may generally then prognosticate that all will soon be well again.

If a child refuse his food, neither coax nor tempt him to eat. Food without an appetite will do more harm than good. It may produce sickness or bowel-complaint. There is always a cause for a want of appetite. Perhaps his stomach has been overworked, and requires repose ; or his bowels are loaded, and Nature wishes to take time to use up the old material. There may be fever lurking in his system ; Nature declines the supplies. The saliva and digestive juices being scantily produced under these circumstances, there is inability to digest food and loss of appetite. There may be inflammation ; the accompanying fever, by its action on the body, moderates the desires. There is no appetite for solid food, only a longing for liquid to quench the thirst. If there be fever something has started the febrile process. The detection of the cause must be sought by an examination directed to the mouth, the throat, the lungs, and the organs generally, and your doctor is the proper person to undertake such an inquiry. Therefore, be the cause an overworked stomach, overloaded bowels, fever, or inflammation, food would be injurious. Kind Nature, if we will but listen to her voice, will tell us when to eat, and when to refrain.

217. *When a child is four or five years old, have you any objections to his drinking tea?*

If milk does not agree, a cup of very weak tea, that is to say, water with a dash of *black* tea in it, with a tablespoonful of cream, may be substituted for milk ; but do not give tea where milk agrees.

218. *Have you any objection to a child occasionally having biscuits, cakes, and sweetmeats?*

There is no harm done in giving a child *occasionally* a biscuit, cake, or sweetmeat. The harm that arises is

due to want of discrimination on the part of the parent as to the choice of such. Advising you *generally*, I would say, "do not give your child *any* fancy biscuits." I look upon them as a fruitful source of bowel troubles. There is no objection to plain cakes, and the sweetmeats of well-known manufacturers, being given occasionally, to be viewed in the light of rewards for good conduct, &c. The practise, however, should be special, not habitual.

It is a disgusting plan to feed children at all hours of the day with cakes and sweetmeats. Their stomachs are upset by *want of rest*, by the continual fretting and worrying of unwholesome material, and their health fails in consequence. A child who is constantly stuffing all day long is a nuisance to himself and those about him, and a great trial to the doctor.

If a child be never allowed to eat cakes and sweetmeats, he will consider a piece of dry bread a luxury, and will eat it with the greatest relish.

219. *Is bakers' or is home-made bread the more wholesome for a child?*

Bakers' bread is certainly the lighter. If we could depend upon its being unadulterated, it would be the more wholesome. As we cannot always depend upon bakers' bread, home-made bread should be preferred. If it be at all heavy, a child must not be allowed to partake of it; a baker's loaf ought then to be sent for, and continued to be eaten until light home-made bread can be procured. Heavy bread is most indigestible. Bread must not be eaten until it be two or three days old.

220. *Do you approve either of caraway seeds or of currants in bread or in cakes—the former to disperse wind, the latter to open the bowels?*

Caraway seeds generally pass through undigested, and thus irritate the bowels instead of dispersing wind. Currants in cakes only open the bowels by disordering them.

221. *My child has an antipathy to certain articles of diet: what would you advise to be done?*

A child's antipathy to certain articles of diet should be respected. Do not force him to eat what he dislikes. There is an idiosyncrasy—a peculiarity of the constitution in some children—and Nature oftentimes especially points out what is good and what is bad for them individually, and we are not to fly in the face of Nature. Food, if it is really to do good, must be eaten with a relish, and not with disgust and aversion.

222. *When ought a child to commence to dine with his parents?*

As soon as he be old enough to sit up at the table, provided the father and mother either dine or lunch in the middle of the day. "I always prefer having children about me at meal times. I think it makes them little gentlemen and gentlewomen in a manner that nothing else will."—*Christian's Mistake.*

His nurse or mother should cut up his food quite small, and he must not be permitted to bolt it. If he bolts his food the meat will pass through his bowels undigested, and his appetite will not be satisfied. Only the plainest food should be on the table, and he must not be allowed all and sundry to taste. If the latter be permitted, his satisfaction with his own simple food will be a thing of the past, and it would be far better, rather than this should occur, to allow him to take his meals in the nursery under the supervision of a competent person.

THE NURSERY.

223. *Have you any general remarks to make on the selection of a nursery?*

Ordinarily, the nursery should be on the top floor of the house *below* the attics. It should consist of two good rooms—a day nursery, and a night or sleeping nursery. The aspect of the day nursery should be south, with the most cheerful prospect attainable. At

the top of the house, because the atmosphere becomes purer the higher we ascend: with a southerly aspect, for warmth and cheerfulness. A northerly or easterly aspect must be avoided if possible. The rooms should be large, with plenty of windows to let in the sunlight.

The entrance door should not face a bath-room, or sink, or water-closet. These conveniences are very useful on the same floor, but as a matter of health they should be at the end of the landing, a little distance away, that any escape of sewer air may not enter our rooms.

A bath-room will be of great importance and benefit to all concerned, besides being an invaluable convenience.

It will be advantageous to have a water-closet *near at hand*, which should be well supplied with water, be well drained, and be well ventilated. An efficiently trapped self-cleansing pedestal closet, with a tilt-up seat, a tiled floor, a water waste-preventing flush tank of three gallons capacity, and ventilation independent of the rest of the house, are essentials.

No house should be selected as an abode that is unprovided with an efficient drainage system; and before taking it the drains should be inspected by a competent person, such as the Medical Officer of Health for the District. Even in first-class residential neighborhoods glaring sanitary defects are constantly being brought to the notice of the Public Health officials when infectious disease breaks out. If people would only take the elementary precaution of seeing that the drains were sound before signing the lease, they and their children would lead healthier lives and be less likely to fall a prey to disease.

224. *Give me your advice on the question of ventilation, and how to procure good ventilation.*

The VENTILATION of a nursery is of paramount

importance. There ought to be a constant supply of fresh pure air in the apartment. But how few nurseries have fresh, pure air! Many nurseries are nearly hermetically sealed—the windows are seldom, if ever, opened; the doors are religiously closed; and, in summer time, the chimneys are carefully stuffed up, so that a breath of air is not allowed to enter! The consequences are, the poor unfortunate children "are poisoned by their own breaths," and are made so delicate that they are constantly catching cold; indeed, it might be said that they are laboring under chronic catarrhs, all arising from Nature's laws being set at defiance.

Air in a room where there are living beings, if not changed, becomes poisonous from being mixed with the breath that comes from the lungs of those beings. The necessity then arises that it must be changed. This is effected by Ventilation. What is Ventilation? "To toss to and fro in the air, to fan." In order to live, we must have our air fanned, tossed to and fro like in hay-making, mixed. You all know that hot air is lighter in weight than cold. Science is such a curious body, she will weigh even air. Well, the light air ascends like a feather when the cold air comes in. This is the law on which is grounded the various means of ventilation. The cheapest ventilator is a pane of glass having a piece cut out at the corners. Next, a pane of glass with holes perforated in it. Then a revolving glass, which can be fitted into any window. A simple and good device is a window board eight inches high, which is fixed across the lower part of the window. When the lower sash is raised fresh air can find its way into the room at a convenient height between the two sashes. A ventilator can be placed in the chimney projection high up. In arranging a system of ventilation the air inlets, of which there should be several, should be equal to the air outlets, and the cold air

should be admitted and deflected upwards above the level of the heads of the occupants. The air inlets, supplemented by insecurely fitting window sashes and doors, will not permit the air to travel at such a rate as at the outlets, and draughts will be avoided. If air travels at a greater rate than one and a half feet per second a draught is felt. Let me beg you never to fasten up your windows and doors with list or tubing; never to have the register of the grate closed; to see that the mat outside of the door does not block up the way so as to prevent the air rushing under. A good fire ventilates the room by drawing air to it, to replace that which has passed up the chimney. The quantity of air drawn to the fire and consumed will depend upon the size of the fire, the height of the chimney, the coldness of the outside atmosphere, and so on. Let me give you an example that hot air ascends, and cold air comes in below it. In fires, when a room is full of smoke, and smoke means heated air mixed with other impurities, it is a common instinct to lie low down to gasp the air nearest the floor. As bread is food, so is good air in a room. Do not be frightened by the word "Ventilation." It is, so to speak, "a very ordinary person," and, like most ordinary persons, it forms a large portion of life physically, as the other does socially.

But, while ventilation is a wholesome thing, you are not to fly to the opposite extreme, make the room draughty, and so expose the child to a cold current of air. A draughty room will give your child "cold." The floor boards should be close together; if they have shrunken the crevices become receptacles for all sorts of "dirt," and these must be stopped or the floor relaid. Floor boards with wide open seams are also draughty. Children are very fond of playing on the floor, and if they get too near the door the cold air rushes in with great force there, and they will be in a draught, especially if a big fire is burning. A nurse must see,

by exercising a little care and thought, that her charges are kept away from this region.

In winter time, if the air is very cold outside, the rapid chilling of the window panes will promote a draught inside close to the window. It is better to place some low article of furniture near the window to prevent the child playing in too close proximity to the draughty area.

225. *Have you any observation to make on the* LIGHT *of a nursery?*

Let the window or, what is better, the windows of a nursery be very large, so as to thoroughly light up every nook and corner of the room, as there is nothing more conducive to the health of a child than an abundance of light in the dwelling. A room cannot, then, be too light. The windows of a nursery are generally too small. A child requires as much light as a plant. Gardeners are well aware of the great importance of light in the construction of their greenhouses, and yet a child, who requires it as much, and is of much greater importance, is cooped up in dark rooms!

The windows of a nursery ought not only to be frequently opened to let in fresh air, *but should be frequently cleaned,* to let in plenty of light and of sunshine, as nothing is so cheering and beneficial to a child as an abundance of light and sunshine!

226. *What is the best time of the day for airing a nursery?*

The windows should be made to freely open both top and bottom. Whenever the child is out of the nursery they ought to be thrown wide open; indeed, when he is in it, if the weather be fine, the upper sash should be a little lowered. A child should be encouraged to change the room frequently, in order that it may be freely ventilated; for good air is as necessary to his health as wholesome food, and air cannot be good if it be not frequently changed. If you wish to have a strong and healthy child, ponder over and follow this advice.

Let a nurse make a point of opening the nursery window every time that she and her little charge leave the nursery, if her absence be only for half an hour. The mother herself ought to see that this advice is followed, pure air is so essential to the well-being of a child.

As to the best time to air the rooms, this will depend on the season and the weather. In summer, the windows should be thrown open early; in winter, some time between twelve and two o'clock. In wet weather, the adoption of a window board, as recommended in Conversation 224, will permit ventilation and prevent the entry of rain into the room.

227. *What is the best means for* WARMING *the nursery?*

There is nothing like the old-fashioned open fireplace with a good-sized chimney, so that it may not only carry off the smoke, but also the impure air of the room. In this burn ordinary coal. Do not use a gas stove. It will cause your children to grow up stunted, weak, delicate, unhealthy. It is an abomination most destructive to human life. Do not use a coal stove. It will give your children baked air instead of Nature's pure food, and they will suffer accordingly. Those of you who have traveled in Germany will agree with me that rooms warmed by stoves are stifling. For myself, the desire has been to rush out from the slow suffocation.

There is no objection to hot-water pipes. But it will be allowed that the convenience of having a fire to resort to on any occasion far outweighs any argument in favor of warmth by hot air.

Be strict in not allowing your child either to touch or to play with fire; frightful accidents have occurred from mothers and nurses being lax on these points. The nursery ought to have a large fire-guard, to go all round the hearth, and sufficiently high to prevent a

child from climbing over. Not only must the nursery have a guard, but every room where he is allowed to go should be furnished with one on the bars.

Lucifer matches, in case of sudden illness, should, both in the nursery and in the bedroom, be always in readiness; but they must be carefully placed out of the reach of children, as lucifer matches are a deadly poison.

228. *What should be the* TEMPERATURE *of the nursery?*

A nursery is usually kept too hot. The temperature in the winter time ought *not to exceed* 60 degrees Fahrenheit. A child in a hot, close nursery is bathed in perspiration; if he leave the room to go to one of lower temperature the pores of his skin are suddenly closed, and either a severe cold or an inflammation of the lungs or an attack of bronchitis is likely to ensue. Moreover, the child is both weakened and enervated by the heat, and thus readily falls a prey to disease.

And here I would give a word of caution. In winter, children from the warm day nursery, going to a fireless and cold night nursery, often suffer much, if they do not get some lung mischief. True, the trouble of lighting a fire and the after cleaning up cause extra work, and "Jane" may be naughtily sulky, but this is better than a long illness, with a Philistine, in the shape of a doctor, constantly in the house! Well, when you notice a great difference in the temperature of the two rooms equalise them by any means in your power. This leads to the question of thermometers. You should have one for the day and one for the night nursery, and the safest place for them is over the mantelpiece, or between the windows.

229. *What is the best* ARTIFICIAL LIGHT *for a nursery?*

The air of a nursery cannot be too pure; I therefore

do not advise you to have gas in it, as gas in burning gives off quantities of carbonic acid and sulphuretted hydrogen, which vitiate the air. A *better* light is that of oils. You say, "They give trouble, and the lamps can be easily upset." True, but because I have a fire to warm my child it does not follow he should fall into it. What I mean is, these difficulties will be got over, and got over fairly easily. The least objectionable is the light of candles. Two candles produce nearly as much carbonic acid gas as a full-grown man! The flame of a lamp or a gas burner will poison the air with carbonic acid to the same extent as two adults! I wish I dared omit the discussion of gas. Well I know this baneful product, charged with all sorts of lung complaints, poisoning all members both of the animal and vegetable kingdom, is respected in all your houses. I must accordingly temporize with you. Do not have gas in the night nursery. Use candles and night-lights. If you have it in one or both rooms—day as well as night—take my *earnest advice,* have a tap put in the pipe that supplies these rooms, that you can turn off the supply *outside* the rooms themselves. Thus you will have two taps to cut it off, one in the room at the burner, one outside to further help, besides one at the meter. You must know that, though you turn off the gas at the meter, such is the pressure at the main that many feet are forced through during the night to escape into your house. If you wish to burn gas or a lamp, a good thing is to have it alight under a flue which communicates with the chimney or the outside air. By this means the noxious products are discharged into the atmosphere instead of the room, and a certain amount of additional ventilation is insured. The most healthy light that you can use is of course the electric light, and if you are so situated that you can obtain it you should lose no time in making arrangements for an electric installation.

230. *How much* SPACE *is necessary in the nursery for each child?*

Each child requires as a *minimum* allowance 8 feet of space in every direction, so as to have the necessary proportion of air requisite for the healthy maintenance of the functions of life. If you measure off 8 feet long, 8 feet deep, 8 feet high, this space will roughly give you the room for each child. With several children, their number—say four or five—should be multiplied by the figure 8 ; the total will give you the size of the room your little ones should occupy. In passing, let me say that this space would not be enough for grown-up people. A child requires at least 1,500 cubic feet of air every hour ; that means that the air in such a room would have to be changed three times during the hour. A more rapid change would make it draughty. If the room is hermetically sealed and efficient ventilation not provided, he will not receive the necessary supply to keep him in health and strength. If it could be managed, he should have double that quantity, and that would mean a room 10 feet high by 10 feet long by 10 feet broad.

231. *Have you anything to say about the* CEILINGS *and* WALLS *of the nursery?*

The ceilings should be white and clean. The best ceiling is a painted one. The next a papered one, varnished. Now, as regards the *walls* of the rooms. Have them covered with a quiet, soft-colored paper. Do not let the paper represent a confused history or outrageous drawings of wild flowers or animals. The best wall is a painted one, plain colored, with a dado. The color should be a light blue, a gray, or a French gray with a dado of a darker color to match. The next, a wall covered with a plain light paper which will bear varnishing. The advantages are that when we have paint or varnish dirt and dust are less likely to accumulate, the walls can be readily cleaned, and this inex-

pensively ; and in case of sickness of an infectious character, as measles, etc., less renovating is required. A distempered wall does not cost much to renew. You say, "What! nothing for the children to look at?" Yes, certainly. Decorate your walls with pictures and mottoes and everything that is pretty and instructive. But let them be so placed as to be readily movable and easily dusted. Change your decorations and pictures as often as you can. I fancy I hear, "Pictures are expensive things." Well, yes and no. I do not ask you to buy any such. I take a colored picture from one of our illustrated papers. "Not framed?" you say. No ; but with a little paste and a sheet of brown paper I make a frame. Then, to preserve my picture, I lightly brush it over with some gum arabic dissolved in warm water. I thus have an inexpensive picture, but it will effect all required if it will give pleasure and maybe teach a happy lesson. You say, "This is a trifle." Yes, but "*Trifles* make perfection ; perfection is no trifle." So sang the great painter Michael Angelo. A golden rule for decorating rooms is—"make everything bright and warm as sunshine."

If you have your nursery walls hung with paintings and engravings, let them be of good quality. The horrid daubs and bad engravings that usually disfigure nursery walls are enough to ruin the taste of a child and to make him take a disgust to drawing, which would be a misfortune. A fine engraving and a good painting expand and elevate his mind. We all know that first impressions are the most vivid and the most lasting. A taste in early life for everything refined and beautiful purifies his mind, cultivates his intellect, keeps him from low company, and makes him grow up a gentleman!

232. *Do you approve of a carpet in a nursery?*

No ; unless it be a small piece for a child to roll upon. A carpet harbors dirt and dust, which dust is constantly floating about the atmosphere, and thus making

it impure for him to breathe. The truth of this may be easily ascertained by entering a darkened room, where a ray of sunshine is struggling through a crevice in the shutters. If the floor of a nursery must be covered, let rugs be laid down, and every morning be taken up and shaken.

The floor of the rooms should be stained and varnished, polished, or covered with parquet; or, under pressure —that is, if none of the above are procurable—with linoleum. You observe I object to carpet or rugs. I look upon both as abominations in the nursery. I view them as literal dust-bins and soil receivers—deleterious to the health of children, constant sources of danger, receptacles for dust, a never-ending work of cleaning up. The advantages of stained floors are freedom from accumulation of dirt, a quick and ready way of cleaning, a lessening of manual labor and its cost. In parquet floors there is absolute absence of open joints in which dirt, etc., could collect. All dirt can be removed when the floor is simply cleaned. So much for the advantages we can see. But there is a greater one hidden. Cleaning floors with soap and water means damp—a rising of moist atmosphere when drying. This moisture goes everywhere that the air in the room does. It clings to the furniture, it soaks into the bedding, and, however careful you may be, it is always liable to attack the lungs or other parts of the bodies of the occupants of the room. This moist atmosphere is to be dreaded, and hence to be prevented. We have ready substitutes in staining and varnishing and parquet. The objection to linoleum is that it always gives out a pungent smell, especially in hot rooms or when a fire is burning. In cleaning a varnished floor it is only necessary to wipe it with a damp cloth and then polish with a dry duster. In parquet, the floor should be swept daily with a hard broom. Once a month turpentine should be applied with an ordinary scrubbing brush, and the floor then

polished with bees-wax and turpentine by means of a house flannel. You may say that polished floors are conducive to accidents. Speaking of a Children's Hospital where parquet was introduced, we were told we should not require to go outside for broken bones! There are "Job's comforters" all over the world. Experience has not verified this prophecy. We have gained in having fewer epidemics of infectious diseases, in the comfort of our patients, in a very considerable saving in the cost of charwomen. With a polished floor I would suggest some pieces of Indian matting, or small strips of Brussels carpet with bound edges, and a hassock or so.

233. *How often should a nursery floor be washed?*

A nursery floor ought not to be *washed* oftener than once a week; and then the child or children should be sent into another room until it be dry. During the drying of the floor the windows must be thrown *wide* open.

The constant *wetting* of a nursery is a frequent source of illness among children. The floor ought to be kept clean; but this may be done by the servant thoroughly sweeping the room out every morning before her little charge makes his appearance.

234. *Will you give me some hints how to furnish a nursery?*

The furniture in the nursery should be as *little* as possible, of the *plainest* character, easily cleaned, readily movable on castors, and inexpensive. Of course you must have cupboards and drawers. They always require thorough examination. When I see untidy cupboards, and maybe dirty ones, I am wicked enough to wish that the keepers of them might be well bitten by the tropical mosquito which haunts such.

Let the furniture be placed methodically. Often on going into a room to see an ailing child I have to go on a voyage of discovery to find it. The center of the room is occupied by a large table; this should not be.

The eye of the nurse should command every corner, every inch of ground. Have a table that you can divide, so that the halves can be easily run against the walls. These halves will form many a "house" and "robber cave" for the little ones. The space in the center clear—ventilation, warmth, and romping can be carried out; the nurse can see all that is going on whilst otherwise engaged.

235. *Have you anything to say about the night nursery?*

The minimum breathing space for each child should be, as named, eight feet in every direction. Each child should have a separate bed. The foundation of the bed should be of wire—either close woven or that called the "Excelsior," now becoming general at our hospitals as being the least expensive, the cleanest, and the healthiest. The mattress should be of horsehair or straw; the pillow of horsehair. Here is the bedding suitable for a child:—Wire mattress, horsehair mattress, mackintosh, blankets, sheets, pillows. The mackintosh is a great aid in preserving the bedding from "accidents" during sleep. It should be well aired, and well cleaned with "Sanitas," or "Thymol," or carbolic, when soiled. Avoid the use of an eiderdown quilt. The perspiration from the body cannot get through the down as through a blanket. It descends again on the sheets, damps them, and causes a great tendency to catching cold. There should be no curtains to the cribs or beds. I was once called to a supposed case of scarlet fever. It was an attack of measles. I found the child almost buried in a big bed, the curtains closely drawn round, and a suffocating atmosphere. The little one was coiled up, restless, poisoned by its own breath. The curtains were soon drawn, the room cooled, the gas put out for a shaded candle. I had the satisfaction of seeing the child uncoil itself and to mark an almost instant improvement. Shall the cribs for the very little ones have rails? Yes. I fancy I hear some one remark,

"But what about the new-born babies?" Well, what I have said about their older brethren applies to them. Distinctly and advisably I beg you to keep the babies in their own cribs. Do not let them be in bed occupied by their mothers. Why? Two lives are disturbed unnecessarily. The mother's breath is bad for the infant, with other reasons. There is also danger of suffocating the child by what is called "overlaying." You say I am "cruel." No. If the child be cold, put a hot-water bottle into the crib. When purchasing a crib, choose one with a mechanical arrangement by means of which the sides can be let down. Such a contrivance is most convenient for the nurse, and a great comfort to the doctor. It is not easy to make a thorough medical examination of a little child when the sides of the crib are not movable.

If the child is sick a board with a narrow rim can be made, which should hang between a couple of short upright pieces. These upright pieces are to be lipped and grooved, so as to rest on the sides of the crib, and of such a length that the board is placed at a convenient height in front of the child. This will provide a table for the little one, on which he can take his meals and play with his toys.

236. *Where should the bed of a child be placed?*

Not in a draught; not facing the light; not under the window. If possible, the head should lie either north or east. There should be no waste water allowed to stand in the night nursery. All the utensils should be kept strictly clean, and should *only* be used *in* the night nursery and emptied immediately.

237. *Supposing there is not a fire in the nursery grate, ought the chimney to be stopped to prevent a draught in the room?*

Certainly not. The use of a chimney is twofold:—to carry off the smoke; and to ventilate the room, by carrying off the impure air. The chimney, therefore,

should never, either winter or summer, be allowed for one moment to be stopped. This is important advice, and requires the strict supervision of every mother, as servants will, if they have the chance, stop all chimneys that have no fires in the grates.

238. *Have you any remarks to make on the drainage of a house?*

Look well to the DRAINAGE of your house and neighborhood. A child is very susceptible to the influence of bad drainage. Bad drains are fruitful sources of scarlet fever, diphtheria, typhoid fever, etc. "It is sad to be reminded that, whatever evils threaten the health of population, whether from pollutions of water or of air —whether from bad drainage or overcrowding—they fall heaviest upon the most innocent victims, upon children of tender years. Their delicate frames are infinitely more sensitive than the hardened constitutions of adults, and the breath of poison, or the chill of hardships, easily blights their tender life."—*The Times.*

Do not rely upon the statement of the landlord or his agent that the drains are "all right." They probably are from his point of view. My experience is that drains are much more frequently "all wrong" than "all right."

To be informed that your drains are defective by the Public Health Authorities when they step in, as they will if there is any infectious disease, will not only be very mortifying, but extensive and expensive alterations and repairs may have to be undertaken—perhaps at your expense. A successful action at law may prove a consolation, but it is not worth all the trouble and annoyance and often pecuniary loss such a suit entails. Before entertaining the purchase or hiring of a residence have the drains tested by a competent authority. The Medical Officer of Health for the district in which you propose to reside will be a suitable authority for you to seek advice from on the subject.

239. *Will you sum up your remarks on the nursery?*

Let a child's *home* be the happiest *house* to him in the world. To be happy he must be merry, and all around him should be merry and cheerful. He ought to have an abundance of playthings to help on the merriment. If he have a dismal nurse and a dismal home he may as well be incarcerated in a prison and be attended by a jailer. It is sad enough to see dismal, doleful men and women, but it is a truly lamentable and unnatural sight to see a doleful child ! The young ought to be as playful and as full of innocent mischief as a kitten. There will be quite time enough in after years for sorrow and for sadness.

Bright colors, plenty of light, *clean* windows, an abundance of *good* colored prints, and toys without number are the proper furnishing of a nursery. Nursery ! why, the very name tells you what it ought to be—the home of childhood—the most important room in the house—a room that will greatly tend to stamp the character of your child for the remainder of his life.

420. *Have you any hints to offer regarding the nurse for my child?*

You yourself must be his *head nurse*—you only require some one to take the drudgery off your hands ! You ought to be particularly careful in the selection of his nurse. She should be steady, lively, truthful, and good-tempered ; and must be free from any natural imperfection, such as squinting, stammering, etc., for a child is such an imitative creature that he is likely to acquire that defect which in the nurse is natural. "Children, like babies, are quick at 'taking notice.' What they see they mark, and what they mark they are very prone to copy."—*The Times.*

She ought not to be very young, or she may be thoughtless, careless, and giggling. You have no right to set a child to mind a child ; it would be like the blind leading the blind. No ! a child is too precious a treasure to be entrusted to the care and keeping of a young

girl. Many a child has been ruined for life by a careless young nurse dropping him and injuring his spine.

A nurse ought to be both strong and active, in order that her little charge may have plenty of good nursing. It requires great strength in the arms to carry a heavy child, for the space of an hour or two at a stretch, in the open air ; and such is absolutely necessary, and is the only way to make him strong, and to cause him to cut his teeth easily, and at the same time to regulate his bowels. A nurse, therefore, must be strong and active, and not mind hard work, for hard work it is ; but, after she is accustomed to it, pleasant notwithstanding.

A nursemaid should never, on any account whatever, be allowed to whip a child. "Does ever any man or woman remember the feeling of being 'whipped' as a child, the fierce anger, the insupportable ignominy, the longing for revenge, which blotted out all thought of contrition for the fault or rebellion against the punishment ? With this recollection on their own parts, I can hardly suppose any parents venturing to inflict it, much less allow its infliction by another, under any circumstances whatever. A nursemaid or domestic of any sort, once discovered to have lifted up her hand against a child, ought to meet an instant severe rebuke, and on a repetition of the offense, instant dismissal." *

Let me sum up the qualifications of a nurse. She should *not* be too young, but strong and active, without any bodily defect,—as stammering or squinting,—intelligent, lively, good-tempered, truthful, steady, forbearing, clean and neat in person and habits. You ask me, "Shall I find such, even under a glass case as a specimen in any museum ?" I have seen such nurses. Such are to be procured. It is a pleasant sight and speaks well for a household wherein is found the faithful old nurse who has grown up with the family. Such faithfulness

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*Woman's Thoughts about Women.

lies in the fact of a kindly relation between the mistress and maid. Station, occupation, do not alter feelings, flesh or blood. The peasant and the king alike become dust, and alike have to give account of their earthly stewardship.

A nurse should never be allowed to wear a mask, or to dress up and paint herself as a ghost, or as any other frightful object. A child is naturally timid and full of fears, and what would not make the slightest impression upon a grown-up person, might throw a child into fits—

> "The sleeping, and the dead,
> Are but as pictures : 'tis the age of childhood
> That fears a painted devil."—*Shakespeare.*

She never should be permitted to tell her little charge frightful stories of ghosts and hobgoblins. If this be allowed, the child's disposition will become timid and wavering, and may continue so for the remainder of his life.

If a little fellow were not terrified by such stories, the darkness would not frighten him more than the light. Moreover, the mind thus filled with fear acts upon the body and injures the health. A child must never be placed in a dark cellar, nor frightened by tales of rats, etc. Instances are related of fear, thus induced, impairing the intellect for life ; and there are numerous examples of sudden fright causing a dangerous and even a fatal illness.

241. *What are Night-terrors ?*

The frightening of a child by a silly nurse frequently brings on Night-terrors. He wakes up suddenly, soon after going to sleep, frightened and terrified, screaming violently, and declaring that he has seen either some ghost, or thief, or some object that the silly nurse had been previously in the day describing, who is come to take him away. The little fellow is the very picture of terror and alarm ; he hides his face in his mother's bosom,

the perspiration streams down him, and it is some time before he can be pacified—at length he falls into a troubled feverish slumber to awake in the morning unrefreshed. Night after night these terrors harass him, until his health materially suffers, and his young life becomes miserable, looking forward with dread to the approach of darkness.

Night-terrors are allied to sleep-walking ; they occur in children of a nervous temperament, and they betoken an irritable, highly excitable condition of the brain.

Treatment of Night-terrors. If they have been brought on by the folly of the nurse, discharge her at once, and be careful to select a more discreet one. When the child retires to rest, leave a candle burning, and let it burn all night ; sit with him until he be asleep ; and take care, in case he should rouse up in one of his night-terrors, that either yourself or some kind person be near at hand. Do not scold him for being frightened—he cannot help it ; but soothe him, calm him, fondle him, take him into your arms and let him feel that he has some one to rest upon, to defend and to protect him. They may, in some instances, depend upon the taking of food before going to bed, but this is exceptional. They are in themselves a trivial form of nervous disorder, but they indicate a nervous state which may prove the stepping-stone to a more harmful form of nervous derangement later on. Warning should be taken, therefore, and it would be better for you to consult your doctor. A soothing medicine for his brain, and the improvement of his general health, may prove sufficient. It may be necessary, before he can be cured, to let him have change of air and change of scene. Let him live the greater part of the daytime in the open air, and be free from all emotional disturbances.

242. *If my child has cold feet at bedtime, how should they be warmed?*

I have seen in the winter time a lazy nurse sit before the fire with a child on her lap, rubbing his cold feet just before putting him to bed. Now, this is not the way to warm his feet. The right method is to let him romp and run about the room, or the landing, or the hall—this will effectually warm them ; but it will entail a little extra trouble on the nurse, as she will have to use a little exertion to induce him to do so, and this extra trouble a lazy nurse will not relish. Warming the feet before the fire will give a little fellow childblains, and will make him, when he is in bed, more chilly. The only way for him to have a good romp, before he goes to bed, is for the mother to join in the game. She may rest assured that if she does so, her child will not be the only one to benefit by it. She herself will find it of marvelous benefit to her own health ; it will warm her own feet, it will be almost sure to insure her a good night, and will make her feel so light and buoyant as almost to fancy that she is a girl again ! Well then, let every child, before going to bed, hold a high court of revelry ; let them have an hour—the Children's Hour—devoted to romp, to dance, to shout, to sing, to riot, and to play, and let them be the masters of the revels—

"Between the dark and the daylight,
When the night is begining to lower,
Comes a pause in the day's occupation,
Which is known as the Children's Hour."
—*Longfellow.*

243. *Have you any more hints to offer conducive to the well-doing of my child ?*

Let a child be employed—take an interest in his employment ; let him fancy that he is useful— *and he is useful,* he is laying in a stock of health. He is much more usefully employed than many other grown-up children are !

A child should be happy ; he must, in every way, be

made happy ; everything ought to be done to conduce to his happiness, to give him joy, gladness, and pleasure. Happy he should be—as happy as the day is long. Kindness should be lavished upon him. Make a child understand that you love him ; prove it in your actions —these are better than words ; look after his little pleasures, join in his little sports ; let him never hear a morose word—it would rankle in his breast, take deep root, and in the due time bring forth bitter fruit. Love ! let love be his pole-star ; let it be the guide and the rule of all you do and all you say to him. Let your face, as well as your tongue, speak love. Let your hands be ever ready to minister to his pleasures and to his play. "Blessed be the hand that prepares a pleasure for a child, for there is no saying when and where it may again bloom forth. Does not almost everybody remember some kind-hearted man who showed him a kindness in the dulcet days of childhood ? The writer of this recollects himself, at this moment, a barefooted lad, standing at the wooden fence of a poor little garden in his native village, while, with longing eyes, he gazed on the flowers which were blooming there quietly in the brightness of the Sabbath morning. The possessor came from his little cottage. He was a woodcutter by trade, and spent the whole week at work in the woods. He had come into the garden to gather flowers to stick in his coat when he went to church. He saw the boy, and breaking off the most beautiful of his carnations (it was streaked with red and white), he gave it to him. Neither the giver nor the receiver spoke a word, and with bounding steps the boy ran home. And now here, at a vast distance from that home, after so many events of so many years, the feeling of gratitude which agitated the breast of the boy expresses itself on paper. The carnation has long since faded, but it now bloometh afresh."—*Douglas Jerrold.*

The hearty ringing laugh of a child is sweet music to

the ear. There are three most joyous sounds in Nature —the hum of a bee, the purr of a cat, and the laugh of a child. They tell of peace, of happiness, and of contentment, and make one for a while forget that there is so much misery in the world.

A man who dislikes children is unnatural ; he has no "milk of human kindness" in him ; he should be shunned. Give me, for friend, a man—

> "Who takes the children on his knee,
> And winds their curls about his hand."—*Tennyson.*

244. *If a child be peevish, and apparently in good health, have you any plan to propose to allay his irritability ?*

A child's troubles are soon over—his tears are soon dried ; "nothing dries sooner than a tear"—if not prolonged by improper management—

> "The tear down childhood's cheek that flows
> Is like the dew-drop on the rose ;
> When next the summer breeze comes by,
> And waves the bush, the flower is dry."—*Scott.*

Never allow a child to be teased ; it spoils his temper. If he be in a cross humor, take no notice of it, but divert his attention to some pleasing object. This may be done without spoiling him. Do not combat bad temper with bad temper—noise with noise. Be firm, be kind, be gentle,* be loving, speak quietly, smile tenderly, and embrace him fondly, but *insist upon implicit obedience,* and you will have, with God's blessing, a happy child.

> "When a little child is weak
> From fever passing by,
> Or wearied out with restlessness,
> Don't scold him if he cry.

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* "But we were gentle among you, even as a nurse cherisheth her children."—1 Thess. ii. 7.

Tell him some pretty story—
  Don't read it from a book ;
He likes to watch you while you speak,
  And take in every look.

Or sometimes singing gently—
  A little song may please,
With quiet and amusing words,
  And tune that flows with ease.

Or, if he is impatient,
  Perhaps from time to time
A simple hymn may suit the best,
  In short and easy rhyme.

The measured verses flowing
  In accents clear and mild
May blend into his troubled thought,
  And soothe the little child.

But let the words be simple,
  And suited to his mind,
And loving, that his weary heart
  A resting-place may find."—*Household Verses.*

Speak *gently* to a child ; speak *gently* to all ; but more especially speak *gently* to a child. "A gentle voice is an excellent thing in a woman," and is a jewel of great price, and is one of the concomitants of a *perfect* lady. Let the hinges of your disposition be well oiled. "'I have a dear friend. He was one of those well-oiled dispositions which turn upon the hinges of the world without creaking.' Would to heaven there were more of them ! How many there are who never turn upon the hinges of this world without a grinding that sets the teeth of a whole household on edge ! And somehow or other it has been the evil fate of many of the best spirits to be so circumstanced, both men and women, to whom life is 'sweet habitude of being,' which has gone far to reconcile them to solitude as far less intolerable ! To those especially the creakings of those said rough hinges of the world is one continued torture, for they are all too finely strung ; and the oft-

recurring grind jars the whole sentient frame, mars the beautiful lyre, and makes cruel discord in a soul of music. How much of sadness there is in such thoughts! Seems there not a Past in some lives to which it is impossible ever to become reconciled?"—*Life's Problems.*

Pleasant words ought always to be spoken to a child; there must be no snarling, or snapping, or snubbing, or loud contention towards him. If there be, it will ruin his temper and disposition, and will make him hard and harsh, morose and disagreeable.

Do not always be telling your child how wicked he is; what a naughty boy he is; that God will never love him. Such conversations, like constant droppings of water, will make an impression, and will cause him to feel that it is of no use trying to be good—that he is hopelessly wicked! Instead of such language, give him confidence in himself; rather find out his good points and dwell upon them; praise him where and whenever you can, and make him feel that, by perseverance and by God's blessing, he will make a good man. Speak truthfully to your child; if you once deceive him he will not believe you for the future. Not only so, but if you are truthful yourself you are likely to make him truthful—like begets like. There is something beautiful in truth! A lying child is an abomination! Sir Walter Scott says "that he taught his son to ride, to shoot, and to tell the truth." Archdeacon Hare asserts "that Purity is the feminine, Truth the masculine of Honor."

As soon as a child can speak he should be made to lisp the noble words of truth, and to love them, and to abhor a lie! What a beautiful character he will then make! Blessed is the child that can say—

"Parental cares watched o'er my growing youth,
And early stamped it with the love of truth."

Leadbeater Papers.

Have no favorites; show no partiality. The young are very jealous, sharp-sighted, and quick-witted, and take a dislike to the petted one. Do not rouse the "Old Adam" in them. Let them be taught to be "kindly affectioned one to another with brotherly love;" let them be encouraged to share each other's toys and playthings, and to banish selfishness.

Attend to a child's *little* pleasures. It is the *little* pleasures of a child that constitute his happiness. Great pleasures, to him and to us all (as a favorite author remarks), come but seldom, and are the exceptions, and not the rule.

Let a child be nurtured in love. "It will be seen," says the author of *John Halifax*, "that I hold this law of kindness as the Alpha and Omega of education. I once asked one, in his own house, a father in everything but the name, his authority unquestioned, his least word held in reverence, his smallest wish obeyed—'How did you ever manage to bring up these children?'—He said '*By love.*'"

Let every word and action prove that you love your children. Enter into all their little pursuits and pleasures. Join them in their play, and be a "child again!" If they are curious, do not check their curiosity, but rather encourage it; for they have a great deal—as we all have—to learn, and how can they know if they are not taught? You may depend upon it, the knowledge they obtain from observation is far superior to that obtained from books. Let all you teach them, let all you do, and let all you say bear the stamp of love. "Endeavor from first to last, in your intercourse with your children, to let it bear the impress of *love*. It is not enough that you *feel* affection towards your children, that you are devoted to their interests; you must show in your manner the fondness of your hearts towards them. Young minds cannot appreciate great sacrifices made for them; they judge their parents by the words

and deeds of everyday life. They are won by *little* kindnesses, and alienated by *little* acts of neglect or impatience. One complaint unnoticed, one appeal unheeded, one lawful request arbitrarily refused, will be remembered by your little ones more than a thousand acts of the most devoted affection."—*The Protoplast.*

A placid, well-regulated temper is very conducive to health. A disordered or an overloaded stomach is a frequent cause of peevishness. Appropriate treatment in such a case will, of course, be necessary.

245. *My child stammers: can you tell me the cause, and can you suggest a remedy?*

A child who stammers is generally "nervous," quick, and impulsive. His ideas flow too rapidly for speech. He is "nervous:" hence, when he is alone, and with those he loves, he oftentimes speaks fluently and well; he stammers more both when he is tired and when he is out of health—when the nerves are either weak or exhausted. He is emotional: when he is either in a passion or in excitement, either of joy or of grief, he can scarcely speak—"he stammers all over." He is impulsive: he often stammers in consequence. He is in too great a hurry to bring out his words; they do not flow in proper sequence: hence his words are broken and disjointed. Overwork at school will accentuate the defect.

Now, with regard to Treatment.—Make him speak slowly and deliberately; let him form each word, without clipping or chopping; let him be made, when you are alone with him, to exercise himself in elocution. If he speak quickly, stop him in his mid-career and make him, quietly and deliberately, go through the sentence again and again, until he has mastered the difficulty. Teach him to collect his thoughts, and to weigh each word ere he gives it utterance. Practise him in singing little hymns and songs for children. A stammerer seldom stutters when he sings. When he sings he has

a full knowledge of the words, and is obliged to keep in time to sing neither too fast nor too slow; besides, he sings in a different key to his speaking voice. Many professors for the treatment of stammering cure their patients by practising lessons of a sing-song character.

A celebrated Scotch professor used to effect a cure of stammering by making his pupil simply shout out, or make any noise directly stammering threatened. The non-compliance was rewarded with a birching!

Never jeer him for stammering, nor turn him to ridicule; if you do, it will make him ten times worse. Be patient and gentle with him, endeavor to give him confidence, encourage him to speak to you as quietly as gently, and deliberately as you speak to him. Tell him not to speak until he has arranged his thoughts and chosen his words; let him do nothing in a hurry.

Demosthenes was said in his youth to have stammered fearfully, and to have cured himself by his own prescription, namely, by putting a pebble in his mouth, and declaiming, frequently, slowly, quietly, and deliberately, on the sea-shore, the fishes alone being his audience, until at length he cured himself and charmed the world with his eloquence and with his elocution. He is held up to this very day as the personification and as the model of an orator. His patience, perseverance, and practise ought, by all who either stammer, or are interested in, a stammerer, to be borne in mind and followed.

246. *Are there other causes for defects of speech, or even absence of speech?*

Yes, there are several. A child may be born with defective or absent hearing, or some serious inflammation may happen to his ears, leading to deafness before he commences to talk. This will make him a deaf-mute. He will probably be a deaf-mute if his ears are seriously involved, leading to deafness, at any time up to seven years old. The part of the ear attacked in

these cases is what is called the internal ear. The internal ear is the delicate end organ of the auditory nerve, just as the eye is the delicate end organ of the optic nerve. The child may fail to hear sounds because his brain is unable to appreciate them, and not because there is any defect in the auditory nerve. If he does not attempt to talk by the time he is five or six years old there is probably some defect of the brain. A child may have some defect of the speech apparatus in the brain leading to dumbness. It may follow some acute disease or some emotional disturbance or nervous exhaustion, or follow a fit, or even be due to the irritation of a tapeworm. The disease may point to some serious mischief in the shape of a tumor in the brain or to an obstructed blood supply. Your doctor must decide the cause for you. If it is of a functional nature it will get well; if due to some grave mischief it will also probably recover, but its cause will remain, and that cause may be dangerous to life.

Sometimes a child has not the full use of his lips or his tongue, or both of them, from a defect in the lower grade nervous apparatus presiding over these movements. He experiences difficulties with the letters p and b; perhaps changes them into f and v, l and t into y and th, or he lisps in a very pronounced manner. His intelligence is unimpaired, but he cannot manage to articulate properly. His conversation may be quite unintelligible.

Defective speech may be due to tongue-tie or a high vault of the mouth (a high vault of the mouth may be associated with deficient intelligence), or to cleft palate or large tonsils, or adenoid vegetations, or to some disease causing obstruction inside the nose, or to paralysis of the palate after diphtheria.

247. *What is the Treatment?*

If there is any anatomical defect this must be remedied. If a child is in danger of losing his speech from

destruction of the hearing he must be taught to speak by imitating the various movements necessary to produce the appropriate sound. These movements will have to be shown him in an exaggerated way, so that he may the more readily imitate them. A skilful teacher will, of course, be necessary. He will probably endeavor to convey his ideas and wants by means of signs. These must be forbidden, or he will lose what power of speech he possesses, and become a deaf-mute. If his speech is defective he must be taught to speak correctly in exactly the same way as if he were a deaf-mute, but in this case he will have the advantage of being able to imitate the sound he hears. Deaf-mutes from birth cannot be taught to speak with success until they are six years old.

EXERCISE.

248. *Do you approve, during the summer months, of sending a child out* BEFORE *breakfast?*

If the child be robust, I do, when the weather permits, and provided that the wind be neither in an easterly nor in a northeasterly direction; indeed, *he can scarcely be too much in the open air.* He must not be allowed to stand about draughts or about entries, and the only way to prevent him doing so is for the mother herself to accompany the nurse. She will then kill two birds with one stone, as she will, by doing so, benefit her own as well as her child's health. But if the child be delicate, he should not go out until after breakfast.

249. *Ought a child to be early put on his feet to walk?*

No; let him learn to walk himself. He ought to be put upon a carpet. It will be found that when he is strong enough he will hold by a chair, and will stand alone; when he can do so, and attempts to walk, he should then be supported. You must, on first putting him upon his feet, be guided by his own wishes. He

will, as soon as he is strong enough to walk, have the inclination to do so. When he has the inclination and the strength it will be folly to restrain him ; if he have neither the inclination nor the strength it will be absurd to urge him on. Rely, therefore, to a certain extent, upon the inclination of the child himself. Self-reliance cannot be too early taught him, and, indeed, every one else. In the generality of instances, however, a child is generally put on his feet too soon, and the bones (especially if he be rickety), being very flexible, bend, causing bowed and bandy legs ; or the knees, being weak, approximate too closely together, and thus they become knock-kneed. This advice of *not* putting a child *early* on his feet I must strongly insist on, as many mothers are so ridiculously ambitious that their young ones should walk early—that they should walk before other children of their acquaintance have attempted—that they have frequently caused the above lamentable deformities ; which are a standing reproach to them during the rest of their lives !

250. *Do you approve of baby carriages?*

Yes. When a child is strong enough he had better walk as much as he will.

In very cold weather, or in a very young infant, the warmth of the nurse's body, while he is being carried, helps to keep him warm, he himself being naturally cold. In point of fact, the child, while being borne in the nurse's arms, reposes on the nurse, warm and supported, as though he were in a nest !

A nurse's arm is the only proper carriage for a *young* child to take exercise on. She ought to change about, first carrying him on the one arm and then on the other. Nursing him on one arm only might give his body a twist on one side, and thus might cause deformity.

251. *Supposing it be wet under foot, but dry above, do you then approve of sending a child out ?*

If the wind be neither in the east nor the northeast, and if the air be not damp, let him be well wrapped up and sent out. In the management of a child, we must take care neither to coddle nor to expose him unnecessarily, as both are dangerous.

Never send a child out to walk in a fog; he will, if you do, be almost sure to catch cold. It would be much safer to send him out in rain than in fog, though neither the one nor the other would be desirable.

252. *How many times a day in fine weather ought a child to be sent out?*

As often as it be possible. If a child lived more in the open air than he is wont to do, he would not be so susceptible to disease, nor would he suffer so much from teething, or from catching cold.

253. *Supposing the day to be wet, what exercise would you then recommend?*

The child ought to run either about a large room or about the hall; and if it does not rain violently, put on his hat and throw up the window, taking care while the window is open that he does not stand still. A wet day is the day for him to hold his high court of revelry, and "to make him as happy as the day is long."

Do not on any account allow him to sit any length of time at a table, amusing himself with books, etc.; let him be active and stirring, that his blood may freely circulate as it ought to do, and that his muscles may be well developed. I would rather see him actively engaged in mischief than sitting still doing nothing! He ought to be put on the carpet, and should then be tumbled and rolled about, to make the blood bound merrily through the vessels, to stir up the liver, to promote digestion, and to open the bowels.

254. *Supposing it to be winter, and the weather to be very cold, would you still send a child out?*

Decidedly, provided he be well wrapped up. The

cold will brace and strengthen him. Cold weather is the finest tonic in the world.

In frosty weather, the roads being slippery, when you send him out to walk put a pair of large old woolen stockings *over* his boots or shoes. This will not only keep his feet and his legs warm, but it will prevent him from falling down and hurting himself. While thus equipped he may even walk on a slide of ice without falling down !

In the winter time a child requires, to keep him warm, plenty of flannel, plenty of food, plenty of fresh and genuine milk, plenty of water in his tub to wash and bathe him in the morning, plenty of exercise, and plenty of play, and then he may brave the frosty air. It is the coddled, the half-washed, and the half-starved child—half-washed and half-starved from either the mother's ignorance or from the mother's timidity—that is the chilly starveling, catching cold at every breath of wind, and every time he either walks or is carried out, a puny, skinny, scraggy scarecrow, more dead than alive, and more fit for his grave than for the rough world he will have to struggle in ! If the above advice be strictly followed a child may be sent out in the coldest weather, even

> " When icicles hang by the wall,
> And Dick the shepherd blows his nail ;
> And Tom bears logs into the hall,
> And milk comes frozen home in pail."
>
> *Shakspeare.*

255. *What is the best way to give a child exercise?*

Undoubtedly the best for infants is that obtained by allowing them to roll on the floor, rubbing or shampooing them, and being carried in the nurse's arms. I object to ordinary Baby carriages as being conducive to spinal and other complaints, and as a courting of accidents. There are less objections to the kind when the child can lie the length of the body. Children

should not be "tossed" or made to "see London," as it is facetiously termed. I refer to lifting a child by pressing the hands against the ears. This ought to be called "daring death." A simple quick turn of the hands, in opposite directions, and the joint between the head and neck is easily broken, and sudden death occurs. A child begins to crawl well about the ninth month and to get from chair to chair. Until able to walk it should be carried by the nurse. In summer, an infant may be taken out when two weeks old; in winter, at the end of a month; after the third month, every day. These directions are subject to weather and the wind. Northeasterly and easterly winds are to be avoided. In wet weather, let fun and frolic be in the nursery, with as little use of the brain at pictures and books as possible.

AMUSEMENTS.

256. *Have you any remarks to make on the amusements of a child?*

Let the amusements of a child be as much as possible out of doors; let him spend the greater part of every day in the open air; let him exert himself as much as he please—his feelings will tell him when to rest and when to begin again; let him be what Nature intended him to be—a happy, laughing, joyous child. Do not let him be always poring over books—

"Books! 'tis a dull and endless strife,
Come, hear the woodland linnet!
How sweet his music! On my life,
There's more of wisdom in it.

And hark! how blithe the throstle sings!
He, too, is no mean preacher;
Come forth into the light of things—
Let Nature be your teacher.

She has a world of ready wealth
Our minds and hearts to bless—
Spontaneous wisdom breathed by health,
Truth breathed by cheerfulness.

One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can."—*Wordsworth.*

He ought to be encouraged to engage in those games wherein the greatest number of muscles are brought into play. For instance, to play at ball, or hoop, or football, to play at horses, to run to certain distances and back; and, if a girl, to amuse herself with a skipping rope, such being excellent exercise—

"By sports like these are all their cares beguiled,
The sports of children satisfy the child."—*Goldsmith.*

Every child, where it is practicable, should have a small plot of ground to cultivate, that he may dig and delve in, and make dirt pies if he choose. Children nowadays, unfortunately, are not allowed to soil their hands and their fine clothes. For my own part, I dislike such model children. Let a child be natural; let him, as far as is possible, choose his own sports. Do not be always interfering with his pursuits, and be finding fault with him. Remember, what may be amusing to you may be distasteful to him. I do not, of course, mean but that you should constantly have a watchful eye over him. Do not let him see that he is under restraint or surveillance; if you do, you will never discover his true character and inclinations. Do not dim the bright sunshine of his early life by constantly checking and thwarting him. Tupper beautifully says—

"And check not a child in his merriment—
Should not his morning be sunny?"

When, therefore, he is either in the nursery or in the playground, let him shout, and riot, and romp about as much as he please. His lungs and his muscles want developing, and his nerves require strengthening; and how can such be accomplished unless you allow them to be developed and strengthened by natural means?

The nursery is a child's own domain; it is his castle,

and he should be Lord Paramount therein. If he choose to blow a whistle, or to spring a rattle, or to make any other hideous noise, which to him is sweet music, he should be allowed, without let or hindrance, to do so. If any members of the family have weak nerves, let them keep at a respectful distance.

A child who never gets into mischief must be either sly, or delicate, or idiotic; indeed, the system of many persons, in bringing up children, is likely to make them either the one or the other. The present plan of training children is nearly all book work and very little play. Play, and plenty of it, is necessary to the very existence of a child.

A boy not partial to mischief—innocent mischief—and play, is unnatural. He is a man before his time, he is a nuisance, he is disagreeable to himself and to every one around. He is generally a sneak and a little humbug.

Girls, at the present time, are made clever simpletons; their brains are worked with useless knowledge, which totally unfits them for everyday duties. Their muscles are allowed to be idle, making them limp and flabby. The want of proper exercise ruins the complexion, and their faces become the color of a tallow candle! And precious wives and mothers they make when they do grow up. Grow *up* did I say? They grow all manner of ways, and are as crooked as crooked sticks!

It is an unnatural thing to confine a child several hours a day to his lessons; why, you might as well put a colt in harness and make him work for his living! He is made for play; his roguish little eye, his lithe figure, his antics, and his drollery all point out that he is cut out for play—that it is as necessary to his existence as the food he eats and the air he breathes!

A child ought not to be allowed to have playthings with which he can injure either himself or others, such

as toy swords, toy cannons, toy paint-boxes, knives, bows and arrows, hammers, chisels, saws, etc. He will not only be likely to injure himself and others, but will make sad havoc on furniture, house and other property. Fun, frolic, and play ought, in all innocent ways, to be encouraged ; but wilful mischief and dangerous games ought, by every means, to be discountenanced. This advice is frequently much needed, as children prefer to have and delight in dangerous toys, and often coax and persuade weak and indulgent mothers to gratify their wishes.

Painted toys are, many of them, highly dangerous, especially those painted *green.*

Children's paint-boxes are sometimes dangerous toys. There are some warranted not to contain a particle of poison of any kind : these ought to be chosen.

But remember, although he ought not to be allowed to have poison paint-boxes or poison-painted toys, *he must have an abundance of toys,* such as the white wood toys—brewer' drays, millers' wagons, boxes of wooden bricks, etc. The Noah's Ark is one of the most amusing and instructive toys for a child. The *choice* of toys requires a word. I would say to you, make a study of your child's opening predilections. Choose according to sex, age, amusement to be derived, what conduces best to bodily vigor and mental development. This study will most probably be prophetic of the child's future walk in life.

One of the great follies of the present age is children's parties, where they are allowed to be dressed like grown-up women, stuck out in petticoats, and encouraged to eat rich cake and pastry, and to drink wine, and to sit up late at night ! There is something disgusting and demoralizing in all this. Their pure minds are blighted by it. Do not let me be misunderstood : there is not the least objection, but, on the contrary, great advantage, for friends' children to meet friends' children ; but then

let them be treated as children, and not as men and women !

Do not make Sunday a day of gloom. Of all the days in the week, Sunday should be the most cheerful and pleasant. It is considered by our Church a festival, and a glorious festival it ought to be made, and one on which our Heavenly Father wishes to see all his children happy and full of innocent joy ! Let Sunday, then, be made a cheerful, joyous, innocently happy day, and not, as it frequently is, the most miserable and dismal in the week. It is my firm conviction that many men have been made irreligious by the ridiculously strict and dismal way they were compelled, as children, to spend their Sundays. You can no more make a child religious by gloomy asceticism than you can make people good by Act of Legislature.

257. *Do you approve of public playgrounds for children?*

It would be well, in every village, and in the outskirts of every town, if a large plot of ground were set apart for children to play in, and to go through regular gymnastic exercises. Play is absolutely necessary to a child's very existence, as much as food and sleep. Playgrounds and play are the best schools we have. They teach a good deal not taught elsewhere. They give lessons in health, which is the grandest wealth that can be bestowed, "for health is wealth." They prepare the soil for the future schoolmaster. They clear the brain, and thus the intellect. They strengthen the muscles; they make the blood course merrily through the arteries; they bestow healthy food for the lungs; they give an appetite. They make a child, in due time, become every inch a man ! Playgrounds and play are the finest institutions we possess. What would our large public schools be without their play and ball grounds ? They would be shorn of half their splendor and their usefulness !

There is so much talk nowadays about *useful* knowledge that the importance of play and playgrounds is likely to be forgotten. I cannot help thinking, however, that a better state of things is dawning. "It seems to be found out that in our zeal for useful knowledge, that knowledge is found to be not the least useful which treats boys as active, stirring, aspiring, and ready."

EDUCATION.

258. *Do you approve of infant schools? or Kindergartens?*

I do, if the arrangements be such that health is preferred before learning.* Let children be only confined for three or four hours a day, and let what little they learn be taught as an amusement rather than as a labor. A playground ought to be attached to an infant school. In fine weather, for every half-hour they spend in school they should spend one in the open air; and, in wet weather, they ought to have, in lieu of the playground, a large room in which to romp. To develop the different organs, muscles, and other parts of the body, children require fresh air, a free use of their lungs, active exercise, and their bodies to be thrown into all manner of attitudes. Let a child mope in a corner, and he will become stupid and sickly. The march of intellect, as it is called, or rather the double quick march of intellect as it should be called, has stolen a march upon health. Only allow the march of intellect and the march of health to take equal strides,

* "According to Aristotle, more care should be taken of the body than of the mind for the first seven years; strict attention to diet be enforced, etc. . . . . The eye and ear of the child should be most watchfully and severely guarded against contamination of every kind, and unrestrained communication with servants be strictly prevented. Even his amusements should be under due regulation, and rendered as interesting and intellectual as possible."—The Rev. John Williams, in his *Life and Actions of Alexander the Great.*

and then we shall have *mens sana in corpore sano* (a sound mind in a sound body).

In the education of a young child, it is better to instruct him by illustration, by pictures, and by encouraging observation on things around and about him, than by books. It is surprising how much may be taught in this way. Be careful to instill and to form good habits : they will then stick to him for life.

Children at the present day are too highly educated—their brains are over-taxed, and thus weakened. The consequence is, that as they grow up to manhood, if they grow up at all, they become fools ! *Children* are now taught what formerly *youths* were taught. The cord of a child's life is often snapped asunder in consequence of over-education :—

"Screw not the cord too sharply, lest it snap."—*Tennyson.*

Treat a child as you would a young colt. Think only at first of strengthening his body. Let him have a perfectly free, happy life, plenty of food to eat, abundance of air to breathe, and no work to do. There is plenty of time to think of his learning, of giving him brain work. Do not make him old before his time.

259. *At what age do you advise my child to begin his course of education—to have his regulation lessons?*

Regarding education, then, this should not be systematic until the eighth year. In the meantime, teaching might progress from toys and pictures to simple books. The brain, if forced, will truly respond; but this "premature intellectual development will be only obtained at the cost of debilitated constitutional powers."

260. *At what age may a child, with safety, commence his lessons? and which do you prefer—home or school education?*

The brain must have but very little work until the child be eight years old. Impress this advice upon your memory, and let no foolish ambition to make your child

a clever child allow you, for one moment to swerve from this advice.

Build up a strong healthy body, and in due time the brain will bear a *moderate* amount of intellectual labor.

Home is far preferable to a school education. At home he is under your own *immediate* observation, and is not liable to be contaminated by naughty children. In every school there is necessarily a great mixture of the good and the bad. A child, unfortunately, is more likely to be led by the bad than by the good. Moreover, if he be educated at home, the mother can see that his brain is not overworked. At school the brain is apt to be overworked, and the stomach and the muscles to be underworked.

261. *Are you an advocate for a child being taught singing?*

I consider singing a part of his education. Singing expands the walls of the chest, strengthens and invigorates the lungs, gives sweetness to the voice, improves the pronunciation, and is a great pleasure and amusement.

As I have given *you* so much advice, permit me, for one moment, to address a word to the father of your child :—

Let me advise you, then, Mr. *Paterfamilias,* to be careful how you converse, what language you use, while in the company of your child. Bear in mind, a child is very observant, and thinks much, weighs well, and seldoms forgets all you say and all you do! Let no hasty word, then, and more especially no oath or no impious language, ever pass your lips, if your child be within hearing. It is, of course, at all times wicked to swear ; but it is heinously and unpardonably sinful to swear in the presence of your child! "Childhood is like a mirror, catching and reflecting images. One

impious or profane thought, uttered by a parent's lip, may operate upon the young heart like a careless spray of water thrown upon polished steel, staining it with rust, which no after scouring can efface."

Never talk secrets before a child—"little pitchers have long ears;" if you do, and he disclose your secrets, as most likely he will, and thus make mischief, it will be cruel to scold him for your imprudence; you will have yourself only to blame. Be most careful, then, in the presence of your child, of what you say, and of whom you speak. This advice, if followed, might save a great deal of annoyance and vexation.

Study your child. There are dispositions and dispositions, characters and characters. Humanity is a variable machine, affected by climate, by circumstances, by surroundings. If the child be "the father of the man," note what you *have* to study. Next, let the deep love you bear your offspring be your guide. Be quick to praise, tardy to punish, firm to be obeyed. Let justice clear your path as regards favoritism. Live your youth over again in the pleasures and amusements of the little ones. The influence of your daily lives; the influence of sanitation on health; the influence of toys; the influence of tales and songs; the influence of teachings of a future state; the inculcation of right principles, will all be reflected in the child's life. The charge of the young is a terrible, but wondrously happy, responsibility.

What says Milton:—

"She went forth among her fruits and flowers,
To visit how they prosper, bud, and bloom,
The nursery, they at her coming spring,
And, touched by her fair tendance, gladlier grew."

And now, what is the use of these strivings, these teachings, the inculcation of principles of all that is good, and true, and noble, and divine? What use? To whom do you owe some of the most blessed and hap-

piest memories of life? To your parents and teachers. You have received and enjoyed these blessings. You are bound to pass them on. What use? The welfare of the little ones in days to come; the prevention of wrong, of crime, the education of posterity. What use? That your boys, on sea and land, remembering home, may touch nothing accursed—dead or living; that your girls may rival the beauty and the virtues of their mother; so that, long after you have passed to your rest, these teachings, these principles inculcated, shall live on, re-echoing along "the corridor of Time."

SLEEP.

262. *Do you approve of a child sleeping on a* FEATHER *bed?*

No. A *feather* bed enervates his body. A horsehair mattress is the best for a child to lie on. The pillow, too, should be made of horsehair. A *feather* pillow often causes the head to be bathed in perspiration, making him liable to catch cold. If he be at all rickety, if he be weak in the neck, if he be inclined to stoop, or if he be at all crooked, let him lie without a pillow.

263. *Do you recommend a child, in the middle of the day, to be put to sleep?*

Put him on his mattress *awake*, that he may sleep for a couple of hours before dinner, then he will rise both refreshed and strengthened for the remainder of the day. I said, put down *awake*. For the first few times he might cry, but by perseverance he will without any difficulty fall to sleep. The practise of sleeping before dinner ought to be continued until he be three years old, and if he can be prevailed upon, even longer. If he do not sleep in the middle of the day, he will sleep all the afternoon, and be cross in the evening; and when he does go to bed, he will probably be too tired to sleep, or his nerves having been exhausted by the long wakefulness, he will fall into a troubled, broken slumber, and

not into that sweet, soft, gentle repose so characteristic of healthy, happy childhood!

264. *At what hour ought a child to be put to his bed in the evening?*

At six in the winter, and at seven o'clock in the summer. *Regularity* ought to be observed, *as regularity is very conducive to health.* It is a reprehensible practise to keep a child up until nine or ten o'clock at night. If this be done he will become old before his time, and the seeds of disease will be sown.

As soon as he can run, encourage him, for half an hour before he goes to bed, to race either about the hall, or the landing, or a large room; this will be the best means of warming his feet, of preventing chilblains, and of making him sleep soundly.

265. *Have you any directions to give me as to the placing of my child in his bed?*

If a child lie alone, place him fairly on his side in the middle of the bed; if it be winter time, see that his arms and hands be covered with the bedclothes; if it be summer, his hands might be allowed to be outside the clothes. In putting him down to sleep, you should ascertain that his face be not covered with the bedclothes; if it be, he will be poisoned with his own breath—the breath constantly giving off carbonic acid gas; which gas must, if his face be smothered in the clothes, be breathed—carbonic acid gas being highly poisonous.

You can readily prove the existence of carbonic acid gas in the breathing, by simply breathing into a little lime-water; after breathing for a few seconds into it, a white film will form on the top; the carbonic acid gas from the breath unites with the lime of the lime-water and the product of the white film is carbonate of lime.

266. *Do you advise a bedroom to be darkened at night?*

A child sleeps sounder and sweeter in a dark than in a light room. The crib ought *not* to face the window,

"as the light is best behind."—If a candle or fire be in use, a screen must shade it from the child's eyes.

267. *Which is the best position for a child when sleeping—on his back, or on his side?*

His side: he ought to be accustomed to change about, on the right side one night, on the left another, and occasionally on his back. By adopting this plan, you will not only improve his figure, but likewise his health.

268. *Do you advise, in the winter time, that there should be a fire in the nursery?*

No, unless the weather be very cold. I dislike fires in bedrooms, especially for children; they are very enervating, and make a child liable to catch cold.

If "a cold stable make a healthy horse," I am quite sure that a moderately cold and well-ventilated bedroom helps to make a healthy child. But still, in the winter time, if the weather be biting cold, a fire in the bedroom grate is desirable. The rule I would lay down is, do not let the temperature of the room get lower than 60° Fahr. In bringing up children, we must never run into extremes. The coddling system and the hardening system are both to be deprecated; the coddling system will make the strong child weakly, while the hardening system will probably kill a delicate one.

A child's bed ought to be comfortably covered with blankets. I say blankets, as they are much superior to coverlets. The perspiration will more readily pass through a blanket than a coverlet. A *thick* coverlet ought never to be used. There is nothing better, for a child's bed, than the old-fashioned patchwork coverlet as the perspiration will easily escape through it.

269. *Should a child be washed and dressed* AS SOON AS HE AWAKES *in the morning?*

Yes, if he awake in anything like reasonable time. If he doze after he be once awake, such slumber does him more harm than good. He should be up every morning as soon as it is light. If, as a child, he be taught to rise

early, it will make him an early riser for life, and will tend greatly to prolong both his existence and his happiness.

Never awake a healthy child from his sleep to dress him, to give him medicine, or for any other purpose. *Let him always sleep as long as he can.* The moment he awakes let him be held out, and then let him be washed and dressed. Do not wait, as many a silly nurse does, until he has wetted his bed, until his blood be chilled, and until he be cross, miserable, and uncomfortable!

The moment he leaves his bed, turn back to the fullest extent the clothes, in order that they may be throughly ventilated and sweetened. They ought to be exposed to the air for at least an hour before the bed be made. As soon as he leaves his room, be it winter or summer, throw open the windows.

270. *Ought a child to lie alone?*

Yes. He will rest more comfortably, and his sleep will be more refreshing.

271. *Supposing a child should not sleep well, what ought to be done? Would you give him a dose of "composing medicine?"*

Certainly not. Try the effect of exercise. Exercise in the open air is the best composing medicine in the world. Let the little fellow be well tired out, and there will be little fear of his not sleeping.

272. *Have you any further observations to make on the subject of sleep?*

Send a child joyful to bed. Do not, if you can possibly help it, let him go to bed crying. Let the last impressions he has at night be of his happy home, and of his loving father and mother, and let his last thoughts be those of joy and gladness. He will sleep all the sounder if he be sent to bed in such a frame of mind, and he will be more refreshed and nourished in the morning by his sleep.

273. *What are the usual causes of a child talking or*

walking in his sleep, and what measures, during such time, ought to be adopted to prevent him injuring himself?

In a perfectly natural state, sleep should be dreamless and unconsciousness absolute. In some highly nervous children, the offspring of nervous parents, sleep may be accompanied by dreaming. The ideas in the dream state, which have a physical basis in an abnormal activity of nervous centers, bring into action other nervous centers presiding over the organs of speech, and the child speaks aloud in sequence to the train of thoughts flowing through his brain (somniloquism) ; or the ideas are of such a nature that they act upon the nervous centers in which the emotions have their origin, and the child screams, he is in a perfect terror, the stimulation is so strong that it rudely awakens the parts still locked in slumber (night-terrors) : or the ideas generated act upon the nervous centers presiding over walking or other complicated muscular movements, and set them in motion (somnambulism).

The sleep-walker may execute the most complicated and even dangerous muscular feats, such as would be impossible in waking moments. Mental activity may be preternaturally acute ; lessons can be learned, exercises written out on paper, and sums and other problems correctly worked out during sleep. In waking moments the child has no knowledge of the occurrences of the previous night. The child himself, the conscious being, the Ego is asleep and unconscious, but underneath the placid surface some portions of his brain are in an abnormal state of activity and restlessness, and pass a sleepless or disturbed night, which is quite unnatural.

Errors of diet in a child *so predisposed* might excite an attack, but over-pressure at school, over-mental and emotional excitement, coupled with an unhealthy moral environment, and physical weakness from unhealthy

surroundings, are much more usual excitants of an unstable nervous system, which is improperly controlled, is in a state of irritability ready to be set in action on the most trifling provocation, and sleeps at its best, as it were, with one eye open.

To prevent him throwing himself out of the window, have bars to his chamber casement, and if that be not practicable, have either nails or screws driven into the window sash to allow the window to open only for a sufficient space for ventilation, and have a screw window fastening, in order that he cannot, without difficulty, open the window ; have a trusty person to sleep in his room, with directions not to rouse him from his sleep, but to gently lead him back to his bed. This may frequently be done without awaking him. Consult a medical man, who will adopt means to brace his nerves, and to strengthen his general system. A trip to the coast and sea-bathing, in such a case, is often of great service.

SECOND DENTITION.

274. *When does a child commence to cut his* SECOND *set of teeth ?*

Generally at seven years old ; but it should be borne in mind that the *second* set of teeth is actually being formed from the very commencement of life, *under* the first tier of teeth. But the second set do not come into play until the *first* teeth, having done their duty, loosen and fall out, thus making room for *the* more numerous, larger, stronger, and more permanent teeth, which have to last for the remainder of life. The *first* set is sometimes cut with a great deal of difficulty, and may be associated with various diseases ; the *second*, or permanent teeth, come easily and are unaccompanied by any disorder. The following is the process :—One after another of the *first* set gradually loosen, and either drop out, or with little pain are readily pulled out ; under these, the *second*—the permanent—teeth make their

appearance, and fill up the vacant spaces. The fang of the tooth that has dropped out is nearly all absorbed or eaten away, leaving little more than the crown. The *first* set consists of twenty ; the *second* consist of thirty-two, including the wise-teeth, which are not generally cut until after the age of twenty-seven.

Pay particular attention to the teeth of your children. Besides their being ornamental, their regularity and soundness are of great importance to the present, as well as to the future, health of your offspring. If there be any irregularity in the appearance of the *second* set, lose no time in consulting an experienced dentist.

ON DISEASE, ETC.

275. *Do you think it important that I should be made acquainted with the symptoms of the* SERIOUS *diseases of children?*

Certainly. I am not advocating the doctrine of a mother *treating serious* diseases ; far from it, it is not her province, except in certain cases of extreme urgency, where a medical man cannot be procured, and where delay might be death ; but I do insist upon the necessity of her knowing the *symptoms* of disease. My belief is, that if parents were better informed on such subjects, many children's lives might be saved, much suffering averted, and sorrow spared. The fact is, the knowledge of the symptoms of disease is, to a mother, almost a sealed book. If she were better acquainted with these matters, how much more useful would she be in a sick room, and how much more readily would she enter into the plans and views of the medical man ! By her knowledge of symptoms, and by having his advice in time, she would nip disease in the bud, and the fight might end in favor of life, for "sickness is just a fight between life and death."—*Geo. MacDonald.*

It is really lamentable to contemplate the amount of ignorance that still exists among mothers in all that

appertains to the diseases of children, although, fortunately, they are beginning to see and to feel the importance of gaining instruction on such subjects; but the light is only dawning. A writer in the *Medical Times Gazette* makes the following remarks, which somewhat bear on the subject in question :—"In spite of the knowledge and clear views possessed by the profession on all that concerns the management of children, no fact is more palpable than that the most grievous ignorance and incompetency prevail respecting it among the public. We want some means of making popular the knowledge which is now almost restricted to medical men or, at most, to the well-educated classes."

In the earlier editions of this work I did not give the *treatment* of any serious diseases, however urgent. In later editions, I have been induced to give the *treatment* of some of the more urgent *serious* diseases, when a medical man cannot instantly be procured, and where delay might be death; and I shall give some prescriptions to be used in an emergency, with general directions, which will be found even better than prescriptions (see Appendix).

"As an old physician of some experience in complaints of infants and children, I may perhaps be allowed to suggest that in a future edition you should add a few words on the actual treatment of some of the more urgent infantile diseases. It is very right to caution parents against superseding the doctor, and attempting to manage serious illness themselves; but your advice, with very small exceptions, always being, 'to lose no time in sending for a medical man,' much valuable and often irremediable time may be lost *when a medical man is not to be had.* Take, for instance, a case of croup; there are no directions given at all, except to send for a medical man, and always to keep medicines in the house which he may have directed. But how can this apply to a first attack? You state that a first attack is

generally the worst. But why is it so? Simply because it often occurs when the parents do not recognize it, and it is allowed to get to a worse point than in subsequent attacks, when they are thoroughly alive to it. As the very best remedy, and often the only essential one, if given early, is a full emetic, surely it is better that you should give some directions as to this in a future edition, and I can speak from my own experience when I say that an emetic, *given in time*, and repeated to free vomiting, will cut short *any* case of croup. In nine cases out of ten the attack takes place in the evening or early night, and when vomiting is effected, the dinner of that day is brought up nearly undigested, and the severity of the symptoms at once cut short. Whenever any remedy is valuable, the more by its being administered *in time*, it is surely wisest to give directions as to its use, although, as a general rule, it is much better to advise the sending for medical advice.

"Such a book ought to be made as complete as possible, and the objections to medical treatment being so explained as to induce mothers to try to avoid medical men are not so serious as that of leaving them without any guide in those instances where every delay is dangerous, and yet where medical assistance is not to be obtained or to be had quickly."—*Sir C. Locock.*

In all the prescriptions given, I have endeavored to make them as simple as possible, and whenever practicable, have avoided recommending powerful drugs, as a child requires much more care and gentleness in his treatment than an adult. I often think it would be better to leave a child to Nature rather than to give him powerful and large doses of medicines.

276. *At what age, and in what neighborhood, is a child most liable to Croup, and when is a mother to know that it is about to take place?*

It is unusual for a child, until he be two years old, to have Croup; but, from that time until the age of three

years, he is more liable to it than at any other period. The liability after three years gradually lessens, until the seventh year, after which time it is rare.

A child is more liable to croup in a low and damp, than in a high and dry neighborhood ; indeed, in some situations, croup is almost an unknown disease, while in others it is very frequent. It is more likely to prevail when the wind is easterly or northeasterly.

There is no disease that creeps on more insidiously or requires more prompt treatment than croup. The child at first seems to be laboring under a slight cold, and is troubled with a little *dry* cough ; he is hot and fretful, and *hoarse* when he cries. Hoarseness is one of the earliest symptoms of croup. A young child, unless he be going to have croup, is seldom hoarse ; if, therefore, your child be hoarse, he should be kept in a room at a temperature of 60° Fahr. and carefully watched, that, as soon as croup be detected, not a moment be lost in applying the proper remedies.

His voice at length becomes gruff, he breathes with a hissing noise, and the cough becomes "brassy" or "croupy." These three symptoms prove that the disease is now fully formed. The throat and glottis or chink of the windpipe are inflamed and swollen. The swelling of the glottis impedes the entry of air to the lungs and it is further hindered by spasm of the part. The spasm is worse at night. It sometimes comes on without any previous warning, the little fellow going to bed apparently quite well, until the mother is awakened, perplexed and frightened, in the middle of the night, by finding him laboring under the characteristic cough and the other symptoms of croup. After fighting for his breath for a time, before the arrival perhaps of medical assistance the spasm passes away and he falls into a comfortable sleep. These attacks may last for several nights in succession. In this case there is, unlike the other, a trifling amount of inflammation

of the larynx and much spasm (False Croup). If she delay either to send for assistance, *or if proper medicines be not instantly given,* in a few hours treatment will probably be of no avail.

When once a child has had croup the after attacks are generally milder. If he has once had an attack of croup, always have in the house some Ipecacuanha Wine, to fly to at a moment's notice, and where practicable, whether the case be severe or mild, send *immediately* for medical aid. There is no disease in which time is more precious than in croup, and where the delay of an hour may decide either for life or for death.

277. *But suppose a medical man is not* IMMEDIATELY *to be procured, what then am I to do?*

At the earliest onset of the disease, give a teaspoonful of Ipecacuanha Wine, every five minutes, until free vomiting be excited. If, after the expiration of an hour (no doctor having arrived), the Ipecacuanha Wine be not sufficiently powerful for the purpose, although it generally is so, then let Prescription XIV. (see Appendix) be substituted.

After the vomiting, place the child for a quarter of an hour in a warm bath.* When out of the bath give him small doses of Ipecacuanha Wine every two or three hours. Prescription XV., in Appendix, is a palatable form for the mixture.

The Ipecacuanha Wine which is given at *first must be only Ipecacuanha Wine, without a drop of either water or syrup.*

A large sponge dipped out of very hot water, and applied to the throat, and frequently renewed, affords great relief, and ought in all cases to be adopted during the time the emetic is being administered.

If it be a *severe* case of croup, and does not in the

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* See "Warm Baths"—directions and precautions to be observed, page 325.

course of two hours yield to the Ipecacuanha emetic, apply linseed meal poultices to the throat, renewed every three hours ; or paint the neck round the throat with Tincture of Iodine, and repeat in twelve hours if there be no blistering.

Let him live on milk and beef-tea as long as there is any fever. The room must be well ventilated and at a temperature of 60° Fahr. night and day. The air of the apartment must be kept moist by the evaporation of boiling water. A common or special kettle can be used for this purpose. A better plan than that is to surround his cot with hangings, make an old-fashioned, four-poster bed of it, with an open roof, or the same may be partially effected by means of a large towel-horse, and allow the croup kettle to discharge steam inside it. The temperature inside a roofed tent must not exceed 70° Fahr., and a thermometer is to be kept inside it to register the temperature. Should the temperature be allowed to exceed 70° Fahr. the child becomes weakened rather than strengthened, and the application does more harm than good. The *treatment* of croup is sometimes very simple. Notwithstanding its occasional simplicity, it is your duty, where practicable, to send, at the very *onset* of the disease, for a medical man. You must send for a medical man because the croup may be diphtheritic croup, and not simple croup, the symptoms may be so much alike. Further, instead of improving, the difficulty of breathing may become more and more pronounced, in spite of your treatment, and it may be necessary to place a tube in the windpipe (tracheotomy), or place one in the glottis or chink of the windpipe itself (intubation), to allow your child to breathe. If this is not done he will suffocate. If the croup is diphtheritic a different line of treatment will have to be adopted, and that your doctor is alone capable of carrying out.

If your child is subject to false croup, or croup, you

must consult a doctor—he will probably not be well until he has had such sources of irritation as enlarged tonsils and adenoid vegetations removed. Have him examined to see if he is suffering in this way. Children who are subject to croup should be warmly clad, but not *coddled*. Sponge the child with tepid water every morning. Do not let him run about with bare legs. If your place of residence is damp and low-lying, you had better select one more suitably situated. Do not send him out of doors in easterly or northeasterly winds.

Ipecacuanha Wine must be genuine. If ever your child has had croup, *always* have in the house a 2-oz. bottle of the Wine that you may be able to resort to at a moment's notice.

Ipecacuanha Wine, unfortunately, is not a medicine that keeps well ; therefore, every three or four months, a fresh bottle ought to be procured, either from a medical man or from a chemist. As long as the Ipecacuanha Wine remains *clear*, it is good ; but as soon as it becomes *turbid*, it is bad, and ought to be replaced by a fresh supply. An intelligent correspondent of mine makes the following valuable remarks on the preservation of Ipecacuanha Wine : "Now, I know that there are some medicines and chemical preparations which, though they spoil rapidly when at all exposed to the air, yet will keep perfectly good for an indefinite time if hermetically sealed up in a *perfectly full* bottle. If so, would it not be a valuable suggestion if some firm, of *undoubted* reliability, would put up 1-oz. phials of Ipecacuanha Wine of guaranteed purity, sealed up so as to keep good so long as unopened, and sent out in sealed packages, with the guarantee of their name ? By keeping a few such ounce bottles in an unopened state in one's house, one might rely on being ready for any emergency."

The above suggestion of preserving Ipecacuanha Wine in ounce bottles, quite full, and hermetically

sealed, is a very good one. The best way of hermetically sealing the bottle would be, to cut the cork level with the lip of the bottle, and to cover the cork with sealing wax, in the same manner as wine merchants serve some kinds of their wines, and then to lay the bottles on their sides in sawdust in the cellar. I have no doubt, if such a plan were adopted, the Ipecacuanha Wine would for a length of time keep good.

278. *I have seen Child-crowing mentioned as a formidable disease, but you did not tell me that it could be mistaken for croup.*

Child-crowing, or spasm of the glottis, is occasionally mistaken for *genuine croup*. It differs from genuine croup in the absence of any "cold," of the dry cough, of the heat of skin, and that there is no disturbance between the intervals of "crowing." It occurs frequently at any part of the day, and not specially at night. Rickety children under eighteen months of age are subject to it, and it is a *most perilous* disease. It is a more frequent disorder than the latter, and requires a different plan of treatment.

It comes on in paroxysms. During the intervals the child appears perfectly well; hence the dangerous nature of the disease is either overlooked, or is lightly thought of, until perhaps a paroxysm worse than usual takes place, and the little patient dies suddenly of suffocation, overwhelming the mother with terror, with confusion, and dismay.

The *symptoms* of a paroxysm are as follows:—The child suddenly loses and fights for his breath, and on recovering, it makes a noise very much like that of crowing; hence the name "child-crowing." The face during the paroxysm becomes bluish or livid. In a favorable case, after a severe struggle of a few seconds, or a minute, to inspire air, he regains his breath, and is perfectly well until another paroxysm occurs. In an unfavorable case, the upper part or chink of the wind-

pipe—the glottis—remains for a minute or two closed, and the child, not being able to breathe, drops a corpse in his nurse's arms! Many children who are said to have died of fits have really died of child-crowing.

Child-crowing is very apt to pass into convulsions, a complication which adds very much to the danger. Such a complication requires the constant supervision of an experienced medical man.

I have again called your attention to the subject, as nearly every life might be saved if a mother knew the nature and the treatment of the complaint, and of the *great necessity, during the paroxysm, of prompt and proper measures.* For, too frequently, before a medical man has had time to arrive, the child has breathed his last, the parent herself being perfectly ignorant of the necessary treatment; hence the vital importance of the subject, and the paramount necessity of imparting such information, in a *popular* style, in conversations of this kind.

279. *What treatment, then, during a paroxysm of Child-crowing should you advise?*

The first thing, of course, to be done, is to send *immediately* for a medical man. Have a plentiful supply of cold and of hot water always at hand, ready at a moment's notice for use. The instant the paroxysm comes on, plentifully and perseveringly dash *cold* water upon his head and face. Put his feet and legs in *hot* salt, mustard and water; and, if necessary, place him up to his neck in a hot bath, still dashing water upon his face and head. If he does not quickly come round, sharply smack his back and buttocks.

In the paroxysm of child-crowing, pull the tongue of the child forward. The plan of pulling the tongue forward opens the windpipe, and thus air is admitted into the lungs, and impending suffocation averted. If this plan were generally known and adopted, many precious lives might be saved.

There is nothing more frightfully agonizing to a mother's feelings than to see her child strangled—as it were—before her eyes, by a paroxysm of child-crowing.

During the intervals, care and attention must be paid to his diet. If the child be breathing a smoky, close atmosphere, he should be immediately removed to a pure one. There is no remedy equal to a change of air —*to a dry, bracing* neighborhood. Even if it be winter, it is the best remedy, either to the sea-coast, or to a healthy mountainous district. Where it is not practicable to send a child *from* home, then let him be sent out of doors the greater part of every day; let him, in point of fact, almost live in the open air. Cold sponging of the body, too, is useful. Consult your medical man. He will prescribe suitable drugs to soothe the nervous system and cure the rickets, and advise you as to a more judicious dietary and hygienic environment.

I have again dwelt on this subject at some length—it being a most important one—as if the above advice were more generally known and followed, nearly every child laboring under this complaint would be saved; while now, as coroners' inquests abundantly testify, the disease carries off yearly a large number of victims.

280. *What are the symptoms of Inflammation of the Lungs?*

If the child have a shivering fit (he may be convulsed); an attack of sickness or diarrhea; a very hot and dry skin; parched lips; great thirst; flushed cheeks; if he be dull and heavy, wishing to be quiet in his cot or crib; a diminished appetite; a furred tongue; if his mouth be *burning* hot and dry;* his water scanty and high-colored, staining the napkin or the linen; *his breathing very rapid, grunting and sniffing, expiration being most prominent, and followed by inspiration*

* If you put your finger into the mouth of a child laboring under inflammation of the lungs, it is like putting your finger into a hot apple-pie, the heat is so great.

(*the reverse is the natural order*); *a short, hacking, dry cough; his skin burning hot*:—then there is no doubt that inflammation of the lungs has taken place.

No time should be lost in sending for medical aid; indeed, the *hot, dry mouth and skin, and short, hurried breathing* would be sufficient cause for your procuring *immediate* assistance. If inflammation of the lungs were properly treated at the *onset*, a child would scarcely ever be lost by that disease. I say this advisedly, for in my own practise, *provided I am called in early, and if my plans are strictly carried out*, I scarcely ever lose a child from inflammation of the lungs.

281. *What is the treatment for Inflammation of the Lungs in the absence of the doctor?*

Keep the child to one room—to his bedroom, and to his bed. Let the chamber be properly ventilated, and the temperature not less than 60° Fahr. If the weather be cool, let a small fire be in the grate; otherwise, he is better without a fire. Let him live on milk and, to quench his thirst, such simple beverages as barley water, toast and water, or lemonade.

The treatment of inflammation of the lungs should not be undertaken by yourself. Danger may arise from weakness of the heart, and a skilful doctor will early detect the signs and ward off the impending evil. At the termination of the fever the child may become exhausted, and very generally this occurs. Hot-water bottles in the bed and the administration of stimulants are here requisite. There may be pleurisy with the inflammation of the lungs, and that may require opium, and opium is a drug you should not use. "Matter" may form in the chest, and that requires a skilled physician for its detection and treatment. There are many reasons, therefore, why you should not undertake the responsibility, unless from force of circumstances it is thrust upon you.

282. *What are the symptoms of Bronchitis?*

Bronchitis is a much more frequent disease than inflammation of the lungs; indeed, it is one of the most common complaints both of infants and of children, while inflammation of the lungs, in comparison with bronchitis, is comparatively a rare disease. Bronchitis is not nearly such a dangerous disease as inflammation of the lungs.

For the first few days the child has a heavy cold; he has not his usual spirits. Then, instead of the cold leaving him, it becomes more confirmed; he is now really poorly, fretful, and feverish; his breathing becomes rather hurried and oppressed; his cough is hard and dry, and loud; he wheezes, and if you put your ear to his naked back, between his shoulder-blades, you will hear the wheezing more distinctly. If he be at the breast, he does not suck with his usual avidity; the cough, notwithstanding the breast is a great comfort to him, compels him frequently to lose the nipple; his water is scanty and rather high-colored, staining the napkin and smelling strongly. He is generally worse at night.

Well, then, remember—if the child be feverish, if he have symptoms of a heavy cold, if he have an oppression of breathing, if he wheezes, and if he have a tight, dry, noisy cough, you may be satisfied that he has an attack of bronchitis.

283. *How can I distinguish between Bronchitis and Inflammation of the Lungs?*

In Bronchitis, the skin is warm, but moist; in Inflammation of the Lungs, it is hot and dry; in bronchitis, the mouth is warmer than usual, but moist; in inflammation of the lungs, it is burning hot; in bronchitis, the breathing is rather hurried, and attended with wheezing; in inflammation of the lungs, it is very short and panting, and is unaccompanied with wheezing, although occasionally a very slight crackling sound might be heard; in bronchitis, the cough is long and

noisy ; in inflammation of the lungs, it is short and feeble ; in bronchitis, the child is cross and fretful ; in inflammation of the lungs, he is dull and heavy, and his countenance denotes distress.

We have sometimes a combination of bronchitis and of inflammation of the lungs, an attack of the latter following the former, and sometimes portions of the lungs become solid because the air cannot reach them, owing to the bronchial tubes being stopped up by thick mucus. Then the symptoms will be modified, and will partake of the character of the two diseases. The fever will be greater—in simple bronchitis the temperature is raised two or three degrees at night—the difficulty of breathing is greater, the nostrils work, and the respirations become grunting, the same alteration in rhythm being observed as in inflammation of the lungs (see Conversation 272). The skin is hot and dry. If he has great difficulty in getting his breath, the lower part of his chest falls in every time he breathes, and the drawing of his breath is evidently an effort ; his face becomes dusky-looking—beads of perspiration stand out on his face and brow, and he may be convulsed. The child is in great danger. If this is not already done, a medical man must be summoned instantly. It may be advisable to let blood, and other special treatment may have to be adopted to prop up and assist his failing heart. Bronchitis, therefore, is a disease which must be treated with respect.

284. *How would you nurse a case of Bronchitis?*

Always send for your medical attendant, and, in his absence, confine the child to his bedroom, and if very ill, to his bed. The temperature of the chamber must not be less than 60° Fahr. See that the room is properly ventilated.

Let him lie either *outside* the bed or on a sofa ; if he be very ill, *inside* the bed, with a sheet and a blanket only to cover him, but no thick coverlet. If he be

allowed to lie on the lap it only heats him and makes him restless. If he be at the breast, keep him to it ; let him have no artificial food, unless, if he be thirsty, a little toast and water. If he be weaned, let him have milk to drink and toast and water, or barley water, to quench his thirst. Let the bowels be opened by a mild aperient. If the bronchitis is severe, rig up a tent without a roof over his crib, or over the head of his crib by means of a towel-horse, and use a croup kettle. The temperature in the tent, if covered in, must not exceed 70° Fahr. For a mild bronchitis, wrap the chest in a thin layer of cotton wool. If the disease occurs in an infant, do not poultice him—the weight of poultices is too great. If he is very "stuffy" in the chest, hot fomentations made by wringing out flannel in boiling water and covered with pink jaconet may be used—they will relieve this. Before applying the fomentation, test it on the back of your hand. Older children can have linseed-meal poultices—with a teaspoonful of mustard to five tablespoonfuls of linseed, used occasionally, and just sufficient to redden the chest—for the same purpose. When the fever has gone, some soap liniment can be rubbed into the chest, which is to be afterwards wrapped in cotton wool.

When the bronchitis has disappeared, the diet ought gradually to be improved—rice, sago, tapioca, and light batter-pudding, etc. ; and, in a few days, either a little chicken or a mutton chop, mixed with a well-mashed potato and crumb of bread, should be given. But let the improvement in his diet be gradual, or the inflammation might return.

Do not administer Paregoric or Syrup of Poppies, either of which would stop the cough, and would thus prevent the expulsion of the phlegm. Any fool can stop a cough, but it requires a wise man to rectify the mischief. A cough is an effort of Nature to bring up the phlegm, which would otherwise accumulate, and in

the end cause death. Again, therefore, let me urge upon you the great importance of *not* stopping the cough of a child. You may give in an emergency Ipecacuanha Wine, which will, by loosening the phlegm, loosen the cough, which is the only right way to get rid of a cough. Let what I have now said be impressed deeply upon your memory, as thousands of children are annually destroyed by having their coughs stopped. Avoid, until the bronchitis be relieved, giving him broths, and meat, and stimulants of all kinds. For further observations on *what* NOT *to do* in bronchitis, I beg to refer you to a previous Conversation we had on *what* NOT *to do* in inflammation of the lungs. That which is injurious in the one case is equally so in the other. Do not become alarmed because you do not see any expectoration. Children under five years old do not expectorate unless they are suffering from hooping-cough. In the former case the expectoration is swallowed ; in the latter it is violently expelled.

Some children are very subject to bronchitis, especially rickety children. Some appear to inherit a "weak chest." On the slightest provocation they catch "cold." These children must not be coddled. They must pass a large portion of the day in the open air, unless the wind be easterly or northeasterly. Hot and stuffy rooms are the finest forcing-houses for colds in the head and bronchitis imaginable. A tepid douche should be given every morning. Clothe the child in woolen materials comfortable and warmly, but do not make him an animated eider-down quilt. If you proceed to this extreme he will become as sensitive to a breath of fresh air in the shape of the production of an attack of bronchitis—as the sensitive plant is in its reaction to the touch of an insect. You will not make a Spartan of him by sending him out of doors with bare legs—such a mode of dress is very foolish. Do not put him

in an oven of a room at one time, and as soon as he shows the slightest improvement allow him to career all over the house seeking all the draughts that can be found. Do all in your power to improve the child's constitution by suitable food, by the adoption of a desirable locality for a residence, by plenty of sleep, not allowing him to stop up to all hours of the night, and by plenty of fresh air.

285. *What is Influenza?*

Influenza is an infectious disease produced by a special microbe, with an incubation period of only a few hours' duration, occurring in epidemic form. It attacks the young and the old, and is induced by exposure to contagion.

286. *What are the symptoms of Influenza?*

In infants at the breast and young children the onset is sudden; there is fever, sickness, drowsiness, some redness of the throat, a dirty tongue, and constipation. Constipation is followed in a day or two by diarrhea. There are pains in the limbs (the infant cries when its limbs are handled) and prostration. The attack may only last two or three days, or the fever may continue for several days, or a week or two or more, with or without diarrhea and fetid stools. If there is Influenza in the house, the cause for such symptoms is obvious. Recovery is the rule, but the child may die exhausted. In older children the disease is ushered in suddenly; the temperature runs high, with thirst and loss of appetite, there are shivering fits, pains in the limbs and the joints, pains in the back, the eyes are blood-shot, the face looks dull and heavy, the throat is sore and reddened, the ears ache, the water is high-colored (save a specimen for your doctor). There is a little cough and expectoration of mucus. There is *very marked general prostration and debility*, but not so much as in adults. In a day or two or more the fever disappears and the child recovers, or the fever may last

for several days or a week or two before finally disappearing

Sometimes there is an eruption just like that of scarlet fever, but the throat symptoms are not severe like those of scarlet fever. If there is influenza in the house the disease is much more likely to be influenza than scarlet fever. Sometimes sickness is uncontrollable and dangerous. There may be severe bronchitis or inflammation of the lungs, or a combination of the two, but children are not so liable to lung complications as adults.

Diarrhea is sometimes a prominent feature in the influenza of older children. The symptoms may be so severe as to suggest that the membranes of the brain are inflamed. Sometimes small blood vessels break and let out their contents into the substance of the brain.

Acute inflammation of the ear also happens sometimes.

One attack of influenza does not protect against another, and relapses are not uncommon.

287. *What is the treatment of Influenza?*

The child must be put to bed and kept there, isolated. The room should be warm, 60° Fahr., and well ventilated. Let plenty of comfortably warm air circulate round the room. Remove any hangings or valances about the bed. Some rhatany lozenges will relieve any soreness of the throat.

The diet should consist of milk and beef-tea. If the temperature is high, and convulsions occur, bathe the child (see Conversation 125). Send for your doctor; the complications may be very troublesome and difficult to treat. See what has been recommended in previous Conversations for these diseases. The essential treatment is to keep the patient warm *in bed.*

288. *My child complains of difficulty in taking a deep breath, as it hurts him, and of a sharp pain in his side. Is this Pleurisy?*

Most possibly so. The symptoms would be ushered in probably by a shivering fit, followed by what is called "a stitch" in one or other side, perhaps pain in the abdomen, and fever. Convulsions often usher in the disease in infancy. The stitch or pain in the side is aggravated on pressing the part, on lying on the same side, on taking breath, and on coughing. The child's skin is hot and dry, the cheeks flushed, the pulse hard and quick, the breathing short and not deep, the urine scanty and high-colored. There is one sign in children with Pleurisy which is not noticed in adults. It is that, in children, *vomiting* is generally a feature—the vomited matter being principally composed of *bile*. If you will put your ear to the painful side, you may detect a sound like rubbing a piece of coarse cloth. The sound goes up and down with the breathing. This means inflammation of the bag in which the lung is contained. Instead of the bag—the pleura—being smooth for the lung to work in it noiselessly, on its surface there is a material poured out, the product of inflammation: hence the rough sound heard. The above are the symptoms of *dry* Pleurisy. The inflammation may go on to what is called popularly "water on the chest," or this "water" may become converted into matter, that is, corruption.

289. *What are the causes of Pleurisy?*

Exposure to cold and wet; and injury to the ribs, and accident, etc., as a blow or a tumble; the invasion of the body by various microbes. It is often present with bronchitis and inflammation of the lungs, and sometimes appears during an attack of rheumatism.

290. *What is the treatment?*

In cases of dry Pleurisy, bind the whole of the chest and part of the abdomen down to the navel, both back and front, with a flannel binder, or strap those parts with strips of diachylon plaster wound round the body. The object is to prevent the ribs from moving. Do

your best to fix the ribs. The lung will then have a better chance of carrying on life, and its bag or pleura the best chance of combating the inflammation with which it is attacked. The plaster should remain until it peels off. The flannel binder should be kept tight as occasion presents. The affected side might be gently rubbed with compound camphor liniment or soap liniment.

Keep the child in bed, in a warm well-ventilated room. Feed him on milk and farinaceous food. Avoid stimulants; if very prostrate, a teaspoonful of whisky in a teacupful of milk may be given. Guard against cold.

Pleurisy is always a dangerous disease, *therefore get advice immediately.*

291. *What are the symptoms of Quinsy?*

Quinsy is an inflammatory sore throat. It is ushered in by fever, redness and swelling of the throat and tonsils (small yellow points may also be seen on these, as well as yellow patches), difficulty in swallowing, and pain running from the throat to the ear. The inflammation has a certain course, ceasing in a few days, and merely leaving the tonsils enlarged. If the inflammation be very severe, it leads to an abscess in one or other tonsil, which is very painful, and continues so until the abscess bursts or is opened by the doctor. Frequent attacks of quinsy conduce to chronic enlargement of the tonsils, and sometimes to tubercular glands in the neck.

292. *What are the causes of Quinsy?*

The causes are numerous, and that is why I dislike the term Quinsy, because it suggests that there is a special unmistakable disease of the tonsils and throat with that name, whereas there is nothing of the sort. As a matter of fact, the name Quinsy is popularly applied in two ways—Firstly, as a general term including all sore throats with enlarged tonsils; and secondly, in reference to one particular affection, in which the tonsils are much enlarged, and may eventually contain ab-

scesses. I have used the word in the former of the two senses, as the more comprehensive. It often requires a skilful doctor to determine the cause, and on the cause depends the treatment.

Such symptoms as I have described may be found with scarlet fever or with diphtheria. Sometimes such an attack is due to exposure to cold and wet, sometimes it accompanies typhoid fever, sometimes rheumatic fever, and sometimes bad drainage is the cause.

A sore throat such as I have described may be the *only* symptom of scarlet fever, and also the *only* symptom of diphtheria. In the first case, perhaps the nature of the illness is revealed when the child's health fails and he is found by the doctor to be suffering from Bright's disease (of the kidneys), or perhaps when some other children in the house have an undoubted attack of scarlet fever. In the second case there is the same sequence of events, or worse may happen, for the child may suddenly die from paralysis of the heart, or acute inflammation of the heart may follow, or the nature of the illness may be revealed by the onset of diphtheritic paralysis. Again, a rheumatic sore throat may be followed by inflammation of the valves of the heart, or of the heart itself. For these reasons I do not approve of a mother treating a case of quinsy unless she is absolutely compelled, and she should send for a medical man to diagnose the disease and instruct her as to its treatment. By following this advice she will prevent the spread of disease in her own household and amongst her neighbors, she will find out whether the sanitary arrangements of her house are as they should be, and she will certainly render her child less liable to severe and perhaps fatal complications.

293. *What is the treatment of Quinsy?*

Put the child in bed in a room the temperature of which is to be kept at 60° Fahr., and *isolate him.* Carefully inspect his skin, and if you find a scarlatinal

rash or *anything suspicious* call the doctor's attention to it. The case should be treated as an infectious one until it is proved to be of an innocent nature. If the throat is very sore, let the child suck ice and gave him black currant jelly or Rhatany or Guaiacum lozenges. If the inflammation is severe apply linseed meal poultices or hot fomentations to the throat externally.

When an abscess is threatening, the child must be watched, as should the abscess burst, especially at night, the contents might almost cause suffocation. If possible the child should have a change of air to the sea-coast. As quinsy, if of a simple nature, is liable recur, you must do the best to strengthen your child's general health.

294. *What are the symptoms of Diphtheria ?*

This terrible disease, although by many considered to be a new complaint, is, in point of fact, of very ancient origin. Homer, and Hippocrates—the Father of Physic—have both described it.

The symptoms.—The little patient, before the disease really shows itself, feels poorly, and is "out of sorts." A shivering fit, thought not severe, may generally be noticed, and the fever, as a rule, is slight. There is heaviness, and slight headache, principally over the eyes. Sometimes but not always, there is a mild attack of delirium at night. The next day he complains of slight difficulty in swallowing. If old enough, he will complain of constriction about the neck. On examining the throat, the tonsils will be found to be swollen and redder—more darkly red than usual. Slight specks will be noticed on the tonsils. In a day or two an exudation will cover them, the soft palate and the uvula. The nose (inside) may also be attacked, and then blood and corruption come from the nostrils. Sometimes the the nose is diseased and not the throat. The child will then snore at night. This exudation gradually increases until it becomes a regular membrane, or skin-like sub-

stance, which is either white-gray in color, or yellow like wash-leather, rarely dark brown or blackish ; hence the name "Diphtheria." This membrane peels off in pieces, leaving an ulcerated surface behind. If the child be *old* and strong enough, he will sometimes spit it up in quantities, the membrane again and again rapidly forming as before. The discharges from the throat are occasionally offensive. There is danger of croup from the extension of the membrane into the windpipe. Much less frequently the disease starts in the glottis and windpipe and travels to the throat. The glands about the neck and under the jaw are generally much swollen.

The child is now in a perilous condition, and it becomes a battle between his constitution and the disease. The danger of the disease is not always to be measured by the state of the throat. Sometimes, when the patient appears to be getting well, a sudden change for the worse rapidly carries him off. Hence the importance of great caution, in such cases, in giving an opinon as to ultimate recovery. In a week or so, if all goes well, the membrane clears away, and the child is left anæmic, but will gradually recover health and strength, though convalescence is prolonged. Sometimes, instead of improving, the child becomes weaker and weaker, then bloody material oozes from the mouth and nostrils, exhaustion is profound, and the child is slowly but surely killed by the poisoning of its blood and tissues.

Sometimes diphtheria is very mild ; the child is a little "out of sorts," but plays about as usual, and the mother is not aware that anything is amiss until perhaps the doctor is called in and finds some serious complication, though this will not necessarily follow.

On the other hand, the disease may be very grave ; it is ushered in by vomiting, all the symptoms described may be exaggerated, the pulse is very weak, and the child dies exhausted in two or three days, or less.

A specimen of the urine should be saved every day for the doctor.

The complications of diphtheria, which you should know, are—

1. *Sudden heart failure,* and death from slight exertion, such as getting out of bed to pass water. This may happen during convalescence as well as during the disease.

2. *Paralysis.* This paralysis comes on in from three to five weeks from the onset of the illness. The first part to be paralyzed is usually the soft palate; often this is the only part affected. Liquid food comes down the nose and the child's voice is "nasal." The paralysis may be much more extensive—weakness of the legs and chest, for example—indeed, it may be fatal.

I have said enough to prove the terrible nature of the disease, and to show the necessity of calling in, at the earliest period of the symptoms, an experienced and skilful medical man.

295. *Is Diphtheria contagious?*

Decidedly. It may pass from patient to nurse, or from child to mother. It can be carried by *clothes* to other children. Therefore, when practicable, the rest of the children ought to be removed, if possible, to a house where there are not any children. They should not be sent far away, so that they can be returned should anything suspicious occur. If the child does not contract the disease for seven clear days, dating from the last exposure, he may be looked upon as free.

The sick child is to be isolated *at once.* The sick room must be properly prepared for his reception—the top of the house is best, and a whole floor should be devoted to him and his nurses, if it can be arranged. Plenty of ventilation is very important. The disease has to be notified to the Medical Officer of Health of the district, and if your doctor fails to do so, he renders himself liable to a fine. Diphtheria attacks chil-

dren mostly between the ages of two and eight years. No period of life is exempt. It is a very fatal disease in infants, if they are unfortunate enough to contract it.

296. *What are the causes of Diphtheria?*

The real cause is a germ, a bacillus, which grows in abundance on the surface of the throat, and there forms a membrane from its action on the underlying tissues. The diphtheria germs, in the course of their growth, form a ferment, and this ferment has such a peculiar action on the membrane and blood and tissues, that it produces virulent poisons from them. The poisoning of the blood induces the symptoms of the disease, and the gravity or otherwise of the complaint depends in great measure upon the dose, as well as upon the powers of resistance of the child. Sometimes these germs are more active and destructive at one time than they are at another.

297. *Where are the breeding grounds for these germs?*

Bad and imperfect drainage. Foul privies and foul cesspools. The germs float in the sewer air as fish do in the sea, and are inhaled. Contaminated milk and contaminated water. Decomposing animal and vegetable matter. Cows suffer from diphtheria sometimes —they have ulcerated udders—and germs are found in their milk. Cats may disseminate the disease. Fowls are subject to croup. The germs of diphtheria can lie dormant in clothes, or curtains, or carpets, for months or even years.

298. *What is the treatment of Diphtheria?*

Look well to your drains, and see that the drinking water is not contaminated in any way, if you are not under the rules and regulations of the Public Health Acts. If you are, as soon as the disease has been notified to the Medical Officer of Health, the Sanitary Inspector will call and thoroughly test your drains. If he finds anything amiss, you will have to remedy the defects.

You must isolate the child, and place him in a *well-ventilated* and as large a room as possible, in which a fire is burning. The temperature should be 60° Fahr. Hang a carbolized sheet over the door, which is to be kept *wet*. It can be wetted by means of an ordinary garden squirt with a fine rose attachment. The fittings and furniture of the dormitory must be as plain as possible. All the child's motions and the urine—except the specimen saved for the doctor—are to be passed in a solution of carbolic acid, 1 in 20, or corrosive sublimate, 1 in 1,000. A few crystals of permanganate of potash (Condy's Fluid) should be mixed with the latter to show its nature. Both these fluids are poisonous. Izal, 1 in 20, is not poisonous, and can be used as a substitute. They are to be instantly removed from the room to the closet, and when they have been covered by and incorporated with the solution for half an hour they are to be emptied away. The utensil is then to be thoroughly cleansed with water, and some fresh disinfectant solution poured in ready for the next occasion. The nose and mouth are to be wiped with clean pieces of rag, which must be *burned immediately*. Washable articles are to be placed in either carbolic acid solution or corrosive sublimate solution, kept in a wooden bucket, before going to the laundry. If any membrane be coughed up you had better save it for the doctor, placing it in carbolic acid, 1 in 20, until he otherwise directs. The best thing to do with it is to throw it and its rag into a clear part of the fire. No food which leaves the sick room is to be returned to the larder—it must be destroyed. If you have not a trained nurse you must be out in the fresh air for exercise at least two hours every day. You cannot act the part of both day and night nurse, with justice to yourself and your own health, and with benefit to your child. You should wear a washable dress. If you are employing one nurse she will have to be off duty a part of the day, and you must take

her place during these times. Be very cleanly in your nursing, and *keep your hands very clean.* Should the child cough in your face *instantly* wash it with some corrosive sublimate, 1 in 3,000, or with some carbolic acid, 1 in 60. Should any unfortunately go into your eye, the lotion must be allowed to go into the eye itself. I give you these hints so that you may take precautions to prevent such an accident happening, and should it unfortunately occur you will know what to do.

The throat must be mopped out every two or three hours with a piece of absorbent cotton wool, or sal alembroth gauze, fixed securely on a stick. This is to be burned directly after the operation. The doctor will probably prescribe a powder to be blown on the parts with an insufflator.

The younger the child the more trouble will be experienced in conducting this line of treatment efficiently, and you should engage a trained nurse when local applications, of which there are a number, are ordered to be made to the throat. The efficient carrying out of local applications is very important for the health of the child.

Diphtheria is a very debilitating disease; therefore, plenty of nourishment will be necessary to sustain the vital powers. The child should take milk or egg and milk, and half a pint of beef soup or beef juice (see Conversation 169).

If there is great difficulty in giving the child food the feeding will have to be supplemented by injections into the lower bowel (nutrient enemata), but these are not tolerated at all well, as a rule, by children:

The yolks of two eggs;
Milk, four fluid ounces;
Salt, thirty grains;
A. Zymine Peptonizing Powder:

Mix the eggs and milk together, heat to 140° Fahr., and add the peptonizing powder. Keep it at this temperature for

half an hour. Add the salt before use, having previously brought the mixture to the boiling point.

The injection should be given slowly, at a temperature of 100° Fahr., and repeated every four hours—four ounces for an injection. If this quantity is returned use two-thirds the quantity or one-half. If this is unsuccessful use nutrient suppositories. Stimulants may be necessary from the earliest stages. If the child shows any signs of weakness they will certainly be required, and if great weakness they must be given freely. Brandy is a good form for their administration, either alone or as brandy and egg mixture. About half of the latter is pure brandy. A liquid called antitoxin has lately been introduced for the treatment of diphtheria. Antitoxin is prepared from the blood of a horse. The horse, after prolonged and patient treatment, is rendered diphtheria-proof. The serum of the horse's blood, when passed into the tissues, by hypodermic injection, of a patient suffering from diphtheria, checks and prevents the poisonous effects of the disease on the system. Antitoxin injections should be commenced as soon as the disease declares itself. Local applications to the throat are to be persevered with at the same time. I need hardly say that a powerful remedy like antitoxin can only be used by a doctor.

If the disease should travel downwards it will cause all the symptoms of croup. Should the obstruction to the breathing from the blocking of the glottis be very great, so that the child will surely suffocate, then it will be necessary to perform an operation, which will make a channel, by means of which the air can enter the lungs. (See "Tracheotomy and Intubation," Conversation 277.) As soon as he has recovered sufficiently he will require a tonic, and when quarantine is over he should be sent away for change of air.

The child must be isolated for one month, and if the throat is not *quite well,* for a longer period. The in-

cubation period of diphtheria is two days, and *very* rarely extends to seven days.

Do not apply a blister. It is almost sure to be covered with the membrane of diphtheria, similar to that inside of the mouth and of the throat, which would be a serious complication.

299. *What means do you advise to purify a house, clothes, and furniture from the contagion of Diphtheria?*

After recovery the room is to be disinfected. The windows must be closed and pasted up, the chimney of the fireplace stopped, and the door shut and rapidly pasted up, and the keyhole stopped, after the sulphur has been fired. Three pounds of sulphur must be burned for each thousand cubic feet of space. Partially fill a bucket with water; in the water place two pieces of brick; on the pieces of brick an old saucepan lid; on the saucepan lid the sulphur moistened with methylated spirit; place in the center of the room; set light to the mixture; leave the room and close the door as directed above; open the following day. A convenient form is the Sulphur Candle. This should be placed in a wash-hand basin which contains a little water. Instead of burning sulphur, Sulphur Dioxide Gas can be used. This is supplied by every druggist. All that is necessary is to cut the stopper and the gas will rush out. The same effect is produced as by burning sulphur, but it is much less troublesome. Recently Formic Aldehyde Vapor has been used successfully. It has some decided advantages over sulphur fumigation. When the door is reopened throw open the windows. The room will now require repapering or redistempering, or the paint must be washed down. The ceiling must be lime-washed.

All articles of furniture, the paint of the woodwork, and the floor should be thoroughly scrubbed with hot water and carbolic soap. The apartment must be freely ventilated. Articles of furniture should be placed in

the sunlight out of doors. Mattresses, pillows, woolen articles of clothing, and books, etc., which cannot be washed, should be disinfected by superheated steam, which will not destroy them. Hot air disinfection, such as by baking, has not sufficient penetrating powers. The outside of the pillow or mattress may scorch, whilst the inside is only just hot, not sufficient to destroy germ life. Disinfectant POWDERS are not to be used for the closet, as they cake in the pipes and may stop the drain. For disinfection use the carbolic or corrosive sublimate solutions. The Public Authorities will disinfect the sick room for you.

300. *Have the goodness to describe the symptoms of Measles?*

Measles commences with symptoms of a common cold; the patient is at first chilly, then hot and feverish; he has a running at the nose, sneezing, watering and redness of the eyes, headache, drowsiness, a hoarse and peculiar ringing cough, which nurses call "measle-cough," and difficulty of breathing. These symptoms usually last three days before the eruption appears. On the fourth day the eruption generally makes its appearance, and continues for four days, and then disappears, lasting altogether, from the commencement of the symptoms of cold to the decline of the eruption, seven days. It is important to bear in mind that the eruption consists of *crescent-shaped—half-moon shaped*—areas of a dusky red hue; that they usually appear first about the face and the neck, in which places the areas are the best marked; then on the body and on the arms; and, lastly, on the legs, and that they are slightly raised above the surface of the skin. The half-moon shaped areas are formed by a peculiar grouping of several raised spots. These raised spots are spattered quite thickly over the face, body, and limbs. Often the spots run together and form large and quite irregular patches on the backs of the arms, the fronts of the thighs, and the buttocks.

The face is swollen, more especially the eyelids, which are sometimes for a few days closed. The throat is red, sore, and swollen.

Well, then, remember, *the running at the nose, the sneezing, the peculiar hoarse cough, and the eruption I have just described* are the leading features of the disease, and point out for a certainty that it is measles.

301. *What constitutes the principal danger in Measles?*

The affection of the chest. The mucous or lining membrane of the bronchial tubes is always more or less inflamed, and the lungs themselves are sometimes affected. The eyes, ears, and bowels may also be affected, and there may be severe croup, necessitating an operation.

302. *Is Measles a contagious and dangerous disease?*

It is very contagious. Hence the necessity of at once isolating the child and attendant as soon as it is discovered. Up to the age of two years, it is more dangerous than scarlet fever.

303. *Do you recommend hot baths to throw out the eruption in Measles?*

Not as a general rule. The way to "throw out" the eruption is to keep the body comfortably warm. Sometimes there is much stuffiness of the chest and glottis, the child is very weak, ill, and in a high state of fever.

The eruption is very dusky-looking, scanty, and does not come out at all well. It is proper under these circumstances to bathe the child, and try to relieve the congestion of the lungs. Prepare a hot bath of the temperature of 100 Fahr., put a tablespoonful of mustard to a gallon of water; keep the child in the bath five or ten minutes, and repeat the operation, if necessary, in an hour. Rapidly dry him and place between the blankets.

304. *What is the treatment of Measles?*

Isolate the patient. Put him to bed in a well-venti-

lated room, the temperature of which is to be maintained night and day at 65° Fahr. Adopt the same hygienic precautions as have been recommended in diphtheria (see Conversation 298). Measles is not a disease which must be reported to the Sanitary Authorities. It is contagious before the appearance of the eruption, perhaps even before the initial "cold"; therefore if you have other children they are not to be sent away from the house, but keep an eye on them and take their temperature daily. On the first appearance of a "cold" and rise of temperature draft the child to the sick ward. *They are not to go to school on any account whatever.* The incubation period is nine or ten days; it may be as short as four days or as long as fourteen days. After fourteen days clear *if there are no symptoms,* the child may be considered free. If the eruption itches very much, and it usually does, you may sponge the child with warm water, into which alcoholic solution of coal tar is dropped, two and a half teaspoonfuls to a pint of water. This will also help to reduce the temperature if it is high.

Give the child milk to drink, and his thirst can be quenched by toast and water, lemonade, or barley water. Black currant jelly will relieve the soreness of the throat and the tickling cough.

If the attack be mild, that is to say, if the breathing be not much affected (for in measles it always is more or less affected), and if there be not much wheezing, the treatment recommended will be all that is necessary.

But suppose that the breathing is short, and that there is a great wheezing, and suppose also there is much croup, then apply a linseed meal poultice, as advised under the head of Bronchitis (see Conversation 284). If the child is young you had better use hot fomentations instead of linseed meal poultices, as they are not so heavy and fatiguing. Under these circumstances, also, it is better to erect a tent without a roof and employ a croup

kettle, or the latter can be used alone. If there is great weakness and prostration stimulants must be administered, but they are not usually required. Bad croup may necessitate an operation, but this is not often necessary. Diarrhea is sometimes a symptom, and it may have a dysenteric character. It need not be checked unless it is immoderate.

The fever usually stops suddenly at the end of the first week—if it be prolonged beyond that period it is owing to some complication, such as inflammation of the lungs.

When the child is convalescing, batter-puddings, rice and sago puddings, in addition to the milk, bread-and-butter, etc., should be given; and, a few days later, chicken, mutton chops, etc.

The child ought not, even in a mild case of measles, and in favorable weather, to be allowed to leave the house under three weeks, or it might bring on an attack of bronchitis.

Do not expose the child to the cold air. Do not keep the bedroom very hot, but comfortably warm. Do not let the child leave the house, even under favorable circumstances, under three weeks. Do not, while the eruption is out, give aperients. Do not, "to ease the cough," administer paregoric—it will stop the cough, and will thus prevent the expulsion of the phlegm. Staining of the skin after the eruption is left for several days, perhaps two or three weeks, after its disappearance. There is usually slight branny desquamation when the eruption is gone. Give the child hot baths, and do not forget to *wash his head.* Be sure he does not catch cold during the operation. Measles often follows hooping-cough, or is preceded by hooping-cough.

Measles may be a very trivial disease, so trivial, indeed, that it may be difficult to say whether the child is suffering from measles or not; but, on the other hand, it may be *very serious,* therefore do not neglect to send for a doctor.

The contagion of measles is such that the child should be isolated for three weeks.

305. *Is Measles ever followed by bad after-effects?*

Certainly. Matter in the chest is not uncommon. Acute inflammation of the ears takes place, and they discharge matter. The eyes do not escape—ulcers may form on the "sights," or there may be inflammation of the eyes (ophthalmia). Then there is enlargement of the glands of the neck, often tubercular, and the child may fall a prey to tuberculosis of all the organs. Paralysis may *rarely* occur like diphtheritic paralysis (see Conversation 294), and there is a very formidable disease of the mouth, which is permanently disfiguring, if not actually fatal.

306. *What is the difference between Scarlatina and Scarlet Fever?*

They are, indeed, one and the same disease, Scarlatina being the Latin for Scarlet Fever. But, in *a popular* sense, when the disease is mild, it is usually called scarlatina. The latter term does not sound so formidable to the ears either of patients or of parents.

307. *Will you describe the symptoms of Scarlet Fever?*

Sickness and fever are usually the first indications of anything amiss. The eruption often appears on the same day. The patient may be chilly, languid, drowsy, feverish, and poorly for two days before the eruption appears. At the end of the first or the second day, the characteristic, bright scarlet efflorescence, somewhat similar to the color of a boiled lobster, usually first shows itself; the face is not involved. The skin is burning hot and dry, just as in inflammation of the lungs. The throat is red and swollen, and the tonsils enlarged, and often showing yellowish patches—in bad cases they are very swollen and ulcerated. The nose runs, the eyes are bloodshot. The tongue is thickly coated with fur, which, when it clears away, leaves a tongue like a strawberry—"the strawberry tongue."

The erruption may be *general,* excluding the face, which is often *flushed,* however ; but it is not at all uncommon to find a less vivid tint, perhaps a dusky hue, and an eruption which is only *localized.* There may be a characteristic patch on the chest, or the abdomen, or the back, or on the limbs, the rest of the skin escaping. The eruption usually declines on the fifth, and is generally indistinct on the sixth day ; on the seventh it has completely faded away. There is usually, after the first few days, great itching on the surface of the body. The skin at the end of the week, begins to peel and to dust off, making it look as though meal had been sprinkled upon it.

There are three forms of scarlet fever. The first is a mild form, which shows itself in a variety of ways. The throat is little, if at all, affected, there is an eruption (if this lasts more than one day it is certainly scarlet fever), there may be no fever, or, if present, it is very trifling ; on the other hand, the throat may be the *only* part attacked. The second is generally, especially at night, attended with delirium, the throat is red and inflamed, the tonsils large, covered with mucus, or yellow spots, or yellow patches, and the glands in the neck swollen. The third (which is, except in certain unhealthy districts, comparatively rare, and which is VERY dangerous) is the malignant form.

308. *Is Diarrhea a dangerous symptom?*

If diarrhea accompanies the sickness at the onset of the disease, it suggests that the attack will be a severe one. Should diarrhea be a *marked* feature of the case, the termination will probably be fatal.

309. *What constitute the principal dangers of Scarlet Fever?*

Affections of the throat, abscesses in the throat and neck, the opening of big blood vessels in the neck from ulceration of the throat or abscess in the neck, affections of the lungs (inflammation of and the formation of

matter in the chest), affections of the heart, inflammation of the ears with its consequences, swelling of the joints, which may either contain matter or be of a rheumatic nature, chronic blood poisoning, and a peculiar disease of the kidneys ending in dropsy, on which account the medical man ought, when practicable, to be sent for at the onset, that no time may be lost in applying *proper* remedies.

When scarlet fever is complicated—as it sometimes is—with membrane, the membrane is very apt to travel into the wind-pipe, and thus to cause membranous croup; it is almost sure, when such is the case, to end in death. When a child dies from such a complication, the death might truly be said to be owing to the membranous croup, and not to the scarlet fever; for if the membranous croup had not occurred, the child would, in all probability, have been saved. It will, therefore, be necessary under these circumstances to perform an operation to save the child's life, should the degree of suffocation be sufficient to warrant one. Croup may arise from the extension of simple inflammation to the glottis, and is not necessarily, therefore, membranous.

310. *How would you distinguish between Scarlet Fever and Measles?*

Measles commences with symptoms of a common cold; scarlet fever does not, though there may be running at the nose and sneezing. Measles has a *peculiar hoarse* cough; scarlet fever has not. The child with measles has a cold three or four days before the appearance of the eruption, the scarlet fever patient has not. Measles commences with a bad cold, scarlet fever with sickness and a sore throat. The eruption of measles is in patches of a half-moon shape, and is slightly raised above the skin; the eruption of scarlet fever is usually *not* raised above the skin at all, and is one continued mass. The eruption of measles appears on the fourth or fifth day, that of scarlet fever on the first or second day. The

shedding of the skin after measles is small in amount, scurfy; after scarlet fever it peels in large flakes. The color of the eruption is much more vivid in scarlet fever than in measles. The "chest" is the part principally affected in measles, and the throat in scarlet fever.

There is an excellent method of determining, for a certainty, whether the eruption be that of scarlatina or otherwise. I myself have, in several instances, ascertained the truth of it:—"For several years, M. Bouchat has remarked, in the eruptions of scarlatina, a curious phenomenon, which serves to distinguish this eruption from that of measles, erythema, erysipelas, etc., a phenomenon essentially vital, and which is connected with the excessive contractibility of the small blood-vessels.

"The phenomenon in question is a *white line*, which can be produced at pleasure by drawing the back of the nail along the skin where the eruption is situated. On drawing the nail, or the extremity of a hard body (such as a penholder), along the eruption, the skin is observed to grow pale, and to present a white trace, which remains for one or two minutes, or longer, and then disappears. In this way the diagnosis of the disease may be very distinctly written on the skin; the word 'Scarlatina' disappears as the eruption regains its uniform tint."—*Edinburgh Medical Journal.*

311. *Is it of so much importance, then, to distinguish between Scarlet Fever and Measles?*

It is of great importance, as in measles the patient ought to be kept *moderately* warm, and the drinks should be given with the chill off; while in scarlet fever the patient ought to be kept cool, and the beverages, such as spring-water, toast and water, etc., should be administered nearly cold. In the case of measles it is not necessary to notify the disease to the Sanitary Authorities; in the case of scarlet fever the Medical Officer of Health must be informed without delay.

312. *Do you believe in "Hybrid" Scarlet Fever—that is to say, in a cross between Scarlet Fever and Measles?*

There is a disease known as German Measles, which sometimes has a rash like scarlet fever, at other times like measles. Apart from rash there are other distinguishing differences, and for an account of these, I refer you to Conversation 322. Seeing the resemblance that it bears to measles and scarlet fever, it is just possible that it may be a mongrel growth from the two diseases, but such is mere conjecture, and no definite assertions can be made either one way or the other.

313. *What is the treatment of Scarlet Fever?*

What is the first thing to be done? Send for a medical man. Isolate the child in as large a room as possible, and devote the whole of the upper floor, if that can be arranged, to the child and his nurses. The nurses are to have no more intercourse with the rest of the household than is absolutely necessary; the less, the better. Further, the pet dog and the cat are not to be allowed admission to the sick chamber, not even during convalescence. Remove all carpets, curtains, woolen stuffs, bed draperies, and so on, and retain in the room *only the furniture which is absolutely necessary.* Adopt identically the same hygienic precautions that have been advocated under the heading Diphtheria. The child is to be put to bed on a hair mattress and covered with a sufficiency of clothing—the coverings should be warm but light. The temperature of the room is to be kept at 60° Fahr., not higher. A window is to be kept partially open at the top for ventilation, and there is to be a fire in the grate. Every precaution is to be taken to ensure thorough ventilation, but by this I do not mean the encouragement of draughts, and all draughts are to be strictly avoided. Do not be afraid of fresh air, for fresh air is essential to recovery. *Fresh air, and plenty of it, in scarlet fever, is the best*

doctor a child can have : let these words be written legibly on your mind.*

Now for the throat. If the throat is moderately sore, ice to suck will afford the greatest relief. Should the child be too small to suck ice, he can be given ice-cold water to sip. Black currant jelly may also be given. Should, however, the throat be very swollen and superficially ulcerated with much unwholesome discharge in its neighborhood, then it will be necessary to adopt more active measures, or the foul discharges may set up inflammation of the lungs. The throat should then be sprayed every two, three, or more hours, according to

* In the *Times* of Sep. 4, 1863, is the following, copied from the *Bridgewater Mercury*—

"GROSS SUPERSTITION.—In one of the streets of Taunton there resides a man and his wife who have the care of a child, this child was attacked with scarlatina, and to all appearance death was inevitable. A jury of matrons was, as it were, empaneled, and to prevent the child 'dying hard,' all the doors in the house, all the drawers, all the boxes, all the cupboards were thrown wide open, the keys taken out, and the body of the child placed under a beam, whereby a sure, certain, and easy passage into eternity could be secured. Watchers held their vigils throughout the weary night, and in the morning, the child, to the surprise of all, did not die, and is now gradually recovering."

These old women—this jury of matrons—stumbled on the right remedy, "all the doors in the house . . . were thrown wide open," and thus they thoroughly ventilated the apartment. What was the consequence? The child, who, just before the opening of the doors, had all the appearances that "death was inevitable," as soon as fresh air was let in showed symptoms of recovery, "and in the morning the child, to the surprise of all, did not die, and is now gradually recovering." There is nothing wonderful—there is nothing surprising to my mind—in all this. Ventilation—thorough ventilation—is the grand remedy for scarlatina! Oh, that there were in scarlet fever cases a good many such old women's—such a "jury of matrons"—remedies! We should not then be horrified, as we now are, at the fearful records of death which the returns of the Registrar-General disclose!

the amount of the discharge, with a saturated solution of Boracic Acid in Glycerine or Listerine Thymoline or Borolyptol. In very severe cases more powerful remedies have to be applied to the parts. The treatment of the throat is no easy matter, and skilled nurses must be obtained for its efficient performance. If the glands in the neck are very swollen and painful, great relief will be afforded by hot fomentations or linseed meal poultices. This treatment is also advocated if the skin is hard and reddened.

Now, with regard to food. The child is best kept on a diet of milk *only*. To quench the thirst he may have soda-water mixed with the milk, or toast and water or barley water. Two pints of milk are quite sufficient for twenty-four hours. Children under one year of age are for the most part exempt, but should a child at the breast contract the disease keep him entirely to it. His thirst may be quenched by boiled water. Animal broths and stimulants are not necessary. *Unless there is some complication,* such as lung disease, or an ulcerated throat, or inflammation of the ear, etc., the fever will have disappeared by the end of the first week. Fever prolonged beyond this period suggests some complication or other.

When the fever has departed his appetite will return, and he may then be allowed milk puddings, with his milk and bread-and-butter; but it is advisable to keep him on a low diet for some time, as the kidneys cannot cope with much extra work without a break-down. They have already quite sufficient work to perform to get rid of the waste materials left by the fever—the scarlet fever poison has produced some structural alterations in their interior—and if they are hampered too much they will the more readily inflame, and Bright's disease and dropsy be a consequence.

If the fever is high during the attack (104° Fahr. and 105° Fahr.) there is no harm done by sponging the body

two or three times during the day with warm water, to which you can add a small quantity of aromatic vinegar. Sponging soothes the child's skin, and reduces the fever. If the child "wanders" or becomes wildly delirious, or is sleepless, an ice bag should be applied to the head, and kept filled with pieces of ice broken up the size of walnuts. An ice bag for the head can be procured at a druggist's, or from a surgical instrument maker. It can be fixed on by a few turns of a bandage. See that the mouth of the bag is securely closed.

Dr. Budd, of Bristol, recommended that the body, including the scalp, of a scarlet fever patient, should, after about the fourth day, be anointed, every night and morning, with oil; this anointing to be continued until the patient is able to take a warm bath and use disinfectant soap; this application will not only be very agreeable to the patient's feelings, as there is usually great irritation and itching of the skin, but it will, likewise, be an important means of preventing the dead skin, which is highly infectious, and which comes off partly in flakes and partly floats about the air as dust, from infecting other persons. The plan is an excellent one, and cannot be too strongly recommended. Instead of plain oil, carbolic oil, 1 in 40, can be used, or a very agreeable preparation is cold cream; and this can be made antiseptic by adding 1 drachm of a saturated solution of Boric Acid in Glycerine. Stronger solutions of carbolic oil will *prolong* the desquamation instead of *retarding* it. When the fever has subsided peeling commences, and it will be proper for him to have hot baths to get rid of the dead skin, and keep the living in healthy action. In administering these baths the *greatest* care must be exercised to see that the child does not take a chill, for should he do so his kidneys are almost sure to suffer. When washing him pay particular attention to the head, the parts behind the ears, and the hands and feet. *The dead skin is very infectious.*

314. *How long should a child be kept to his bed and room?*

He should be kept in bed at least three weeks, whether the case be mild or not. If he be allowed out of his bed sooner than this he is much more liable to suffer with his kidneys. He must be quarantined for six weeks, sometimes two months, or even longer than that period. He cannot be discharged with safety to the public if he be still peeling, or if his throat be inflamed, or if he has a discharge from the nose or ears. Sometimes peeling, when it has almost if not quite ceased, recommences, and the skin is once again shed quite copiously. The freedom from the power to spread the disease in such case will have to be decided by the doctor on its own merits, and it is very difficult in some instances for him to decide whether it is right or not to give a clean bill of health. Scarlet fever is a terribly infectious disease, and great care has to be exercised.

315. *You have spoken about the danger of Inflammation of the kidneys, or Scarlatinal Dropsy; will you kindly give me some information on the subject?*

Inflammation of the kidneys usually comes on from the third to the fourth week, but dropsy may announce its onset as early as the first week, and it is liable to arise all through the peeling stage. *A specimen of the urine should therefore be saved for the doctor every day,* and you should purchase a proper conical-shaped glass at the druggist's for the purpose. He will gain much valuable information from an examination of the urine. Should the child have a slight attack of fever about this time, and should he be also sick, save a specimen of his urine. The water is usually smoky colored and less in quantity than natural, rarely of a port wine hue, and deposits a sediment like beef-tea dregs in the bottom of the glass. His face will probably be *very pale* and swollen, the eyelids puffy, the ankles swollen, and the "purse" much enlarged, pale and dropsical. If he be

up, put him back to bed, wrap him in the blankets, clothe him in a flannel night-shirt, envelop the loins with a linseed-meal poultice, give him half a drachm or a drachm, according to the age, of compound jalap powder, let him have warm milk and barley water to drink, and *send for the doctor*. Do nothing further until he arrives, when he will tell you what to do.

If you do not keep a watchful eye on the "water" convulsions may rudely awaken you to the fact that there is something serious the matter, or sudden collapse with a blue face, cold sweats, gasping breathing, and a feeble or indistinguishable pulse may be the grave danger-signal. In the first instance his brain is being poisoned by the waste material in his body, which the kidneys are powerless to remove with sufficient rapidity; in the second, the diseased kidneys have thrown such a strain on the heart that it suddenly collapses. Should you detect any extreme rapidity of the breathing—breathlessness—send for the doctor at once. This may be the first sign of what is about to happen.

316. *I have heard of a case of Scarlet Fever where the child, before the eruption showed itself, was suddenly struck prostrate, cold, and almost pulseless: what, in such a case, are the symptoms, and what immediate treatment do you advise?*

There is an *exceptional* case of Scarlet Fever, which now and then occurs, and which requires *exceptional* and prompt treatment, or death will quickly ensue. We will suppose a case: one of the number, where nearly all the other children of the family are laboring under scarlet fever, is quite well, when suddenly—in a few hours, or even, in some cases, in an hour—utter prostration sets in, he is very cold, livid, gasping for breath, and is almost pulseless, and is nearly insensible —comatose.

Having sent instantly for a judicious medical man, apply, until he arrives, hot bottles, hot bricks, hot bags

of salt to the patient's feet, and legs, and back, wrap him in hot blankets, and give him hot brandy and water (a tablespoonful of brandy to half a tumblerful of hot water), give it him by teaspoonfuls continuously, to keep him alive; when he is warm and restored to consciousness, the eruption will probably show itself, and he will become hot and feverish.

We sometimes hear of a child, before the eruption comes out, and within twenty-four hours of the attack, dying of scarlet fever. When such is the case it is owing to utter prostration: the disease acts as a powerful poison upon the heart, he is struck down, as though for death, and if the plan be not adopted of keeping him alive for a few hours by heat, and by stimulants, until, indeed, the eruption comes out, he will never rally again, but will die from scarlet fever poisoning and from utter exhaustion. These cases are comparatively rare, but they do occur from time to time, and when they do, they demand exceptional, and prompt, and energetic means to save them from ending in almost immediate and certain death. "To be forewarned is to be forearmed."*

317. *Do grave symptoms always occur so suddenly in malignant cases of Scarlet Fever?*

No, the instances I have narrated are exceptional. Sometimes the child shows signs of a sorely stricken heart at the end of the first week. The attack, to commence with, is a sharp one; there is probably diarrhea; the throat is dry, inflamed and ulcerated; the rash dusky-looking; the glands in the neck greatly enlarged, the whole neck being swollen; the fever high. He is delirious, the tongue is dry, foul black secretions

* I have been reminded of this *exceptional* case of Scarlet Fever by a most intelligent and valued patient of mine, who had a child afflicted as above described, and whose child was saved from almost certain death by a somewhat similar plan of treatment to that advised in the text.

cake on his teeth and lips, he steadily goes from bad to worse, the body becomes cold, the breathing is gasping, he is unconscious and pulseless, and dies.

Sometimes the termination is not so rapid as this, and he lasts till the second week, perhaps longer, and succumbs to another form of blood poisoning. The condition of the throat, instead of improving, increases in severity, parts literally melt away, the soft palate disappears in part or entirely, and should the child recover, the deformity resulting will be great. The lungs inflame, abscesses form in the neck, the skin ulcerates and matter is discharged. Abscesses arise in the kidneys and elsewhere, and he is wasted to a shadow, and dies exhausted. In bad cases of scarlet fever, where there is much depression, it is necessary to give stimulants and a more nourishing and easily digested dietary than has been previously recommended. Every endeavor must be made to tide the child over his illness by skilful and assiduous nursing, by stimulants, by nourishing liquid foods, and by cleansing applications to the throat.

318. *I have several other children at home: what am I to do?*

Scarlet fever poison is given off by the breath and the evacuations. It is possible that the other children may have already absorbed the germs of the disease, or they may have been exposed to the same contagion, but do not "breed" the disease so quickly.

They must not be allowed near the sick child or his nurses. They should be sent away to a friend's or a relative's house *near*, where there are no children, and their temperature should be taken morning and evening. If they develop the disease, they can immediately be returned to the sick room at home. *They must on no account go to school, or they will spread the disease.* Remember the young are more prone to catch contagious diseases than adults; for

"In the morn and liquid dew of youth,
Contagious blastments are most imminent."
Shakespeare.

The incubation period of scarlet fever is a short one usually from one to three days, rarely a week. A child may return to his school or his playmates if he shows no sign of infection in the shape of fever, or sore throat, or rash, or any illness whatever, after seven clear days dating from the *last* exposure to the disease.

319. *What means do you advise to purify a house, clothes, and furniture from the contagion of Scarlet Fever?*

For a full account of this I must refer you to Conversation 299, under the heading of Diphtheria. If there is a Sanitary Authority in your district, the Sanitary Inspector will disinfect the room with sulphur, and the clothing with the same disinfectant, if the authority does not possess a super-heated steam disinfecting apparatus. Disinfection by hot air is not one whit more reliable than fumigating by sulphur, which is not an ideal way of treating woolen materials.

320. *Have you any further observations to offer on the precautions to be taken against the spread of Scarlet Fever?*

Look to your household drains and see that they are in a good sanitary condition. Scarlet fever, like diphtheria, can be conveyed by milk. The milk may be contaminated from direct contact with the scarlet fever poison. If it be allowed to stand in the sick room it will absorb the poison, and if what remains is drunk down-stairs, it will to a certainty convey the disease! Cows sometimes suffer from an infectious disease called "sore teats," which produces scarlet fever in the human being. A limited outbreak of scarlet fever occurred in Beckenham from direct contamination of the milk. A child had been returned from the Infectious Hospital who was subsequently found to be still slightly peeling.

Her father milked cows for a dairyman who supplied part of the district with milk. As a result, a small epidemic of scarlet fever occurred in certain of the houses supplied with milk by that dairyman. The epidemic was soon stamped out on the cause being discovered.

Therefore, let this be a warning to you, and take the precaution to boil your milk as soon as it arrives. You never know what assassin is lurking in it. When the doctor has given the child permission to leave the room in which he has been so long confined, he should be given a final bath there, leave all his clothes in the room, and dress in fresh garments in a neighboring apartment prepared to receive him. Remember, quite apart from sore throat, discharges from the ear or nose, that the poison of scarlet fever can be conveyed *as long as there is any peeling.* If there is any still, call your doctor's attention to the fact. There may be still a little branny scurf at the back of the ear, in the hollows behind the ankle bones, and between the toes, etc! Be very careful when you wash him.

If scarlet fever should appear in a school, the school must for a time be broken up, in order that the disease may be stamped out. There must be no half measures where such a fearful disease is in question. A house containing scarlet fever patients should, by parents, be avoided as the plague; it is a folly at any time to put one's head into the lion's mouth! Remember, as I have said before, and cannot repeat too often, there is no preventive like the air of heaven, which should be allowed to permeate and circulate freely through the house. Air, air, air, aided by the glorious sunlight, are the best disinfectants and preventives of scarlet fever in the world.

321. *What is German Measles?*

It is an infectious disease which sometimes looks like scarlet fever, but much more often like measles. It breeds true, that is, it produces German Measles, and not

scarlet fever or measles, as it passes from child to child. It is called Rubeola.

322. *What are the symptoms of German Measles?*

An eruption is the most noticeable feature. The eruption sometimes appears on the day the child feels out of sorts; sometimes not for two or three, or perhaps more days. The child may feel quite well up to the advent of the rash, or he may feel "unwell," and mopes and does not want his food; or he may have a cold in his head, blood-shot eyes, and a sore throat for a few days before the rash comes. The fever is very slight, as a rule. The glands at the nape of the neck, the back of the neck, under the jaw, in the armpits, or in the groins *may* be a little enlarged, and sore.

The Measles Rash is like that of measles (see Conversation 300), but it is rosy-colored, the half-moon shaped patches are not so obvious, if present at all; the separate spots, which are not so distinct, tend to run into larger patches on the face than in measles—the whole face may be rosy-red. The rash fades in three or four days, then leaves a stain, and the skin peels in a branny way.

The Scarlatinal Rash is like that of scarlet fever, and you would not be able to distinguish between them. If the eruption is very pronounced, and the symptoms are not marked, then it is *possibly* not scarlet fever, but in the absence of an epidemic of German measles it *probably* is scarlet fever, and should be treated as such. If the child subsequently peels copiously there is no doubt about it being scarlet fever.

323. *How long does it "breed" in the system before the disease asserts itself?*

The incubation period of German measles is usually much longer than measles—eighteen days from rash to rash is the most frequent, but it may be as low as five days and as much as three weeks. In measles the usual time is nine or ten days.

324. *What is the treatment?*

Isolate the child and call in your doctor. He need not go to bed unless he is ill. Keep the room at a temperature of 60° Fahr., and well ventilate it. In exceptional cases croup or inflammation of the lungs may arise, so it is as well to be careful, and not expose the child to draughts or a chilly atmosphere.

It is not necessary to notify the disease to the Medical Officer of Health. He may be allowed to go free *as soon as peeling has ceased.* Disinfection is to be conducted on the same lines as that recommended for diphtheria, but it will not be necessary to repaper the room. A child who has been exposed to infection cannot be considered free until three weeks have elapsed from the time of the last exposure, and then only if he be *quite well.* Keep him away from school during that time.

325. *What is Chicken-pox?*

It is an infectious disease, chiefly attacking children, and bears no relationship whatever to smallpox.

326. *Will you describe the symptoms of Chicken-pox?*

Finding the eruption on the child's body is *usually* the first alarm. He may be a little out of sorts for a few hours before; perhaps has a shivering fit. The eruption shows itself in from a few hours to twenty-four hours from the child first appearing poorly. It is a vesicular * disease. The eruption comes out in the form of small rose-colored pimples, attacking the scalp, the neck, the back, the chest, the shoulders, the limbs, the mouth, tongue and soft palate, and the face slightly. In smallpox the face is generally the part most affected. These rose-colored pimples quickly become vesicles; the vesicles dry up or they become opaque, like ground glass, rarely fill with matter, and then dry up with a

* *Vesicles.* Small elevations of the cuticle, covering a fluid which is generally clear and colorless at first, but becomes afterwards whitish and opaque, or pearly.—*Sir T. Watson.*

scab. Sometimes they are depressed or dimpled in the center. The eruption comes out in *crops* for four, five, and rarely more succeeding days. On the body will be found all varieties of eruption at the same time—pimples, vesicles, and scabs. Sometimes the vesicles have red rings round them, sometimes not. The disease is sometimes called "Glass-pox," from the appearance of the vesicles. Chicken-pox is usually attended with a slight itching of the skin. Chicken-pox not at all infrequently leaves a scar or two or more to tell the tale. Sometimes the rash is associated with one like scarlet fever or measles, but this is a rare occurrence.

The amount of fever will depend upon the quantity of the rash. If the rash is small in amount, the fever is but trifling, if present at all; if the rash is copious, the fever is high, but it does not last many days, and soon disappears.

327. *What treatment do you advise? Is there any danger?*

Isolate the child; adopt the same precautions as if he were suffering from scarlet fever or diphtheria. You are not compelled to notify the case to the Medical Officer of Health. Send for your medical attendant, and put the child on a slop diet. He may have toast and water, or home-made lemonade to quench his thirst while the fever lasts. Do not allow him to scratch himself; the skin itches, and he is likely to do so. If he scratches himself he is most likely to have scars after the attack, and inoculate himself with matter which will cause fresh and perhaps very troublesome "breakings-out." The irritation of the spots may be relieved by smearing on Boracic Acid Vaseline. Usually the disease is not followed by any troubles, but he may have inflammation of the kidneys, and sometimes the eruption mortifies. The vesicles or pustules become black, and have a dirty red halo round them. This often happens if the child is suffering from tuberculosis, but it

does not follow that he has tuberculosis if some of the spots do mortify. In weakly children tuberculosis may follow the disease. *He must not leave his room until all the eruption has quite disappeared, whether it be three, four, or five weeks.* He is infectious as long as there are any "breakings-out." At the termination of the disease disinfect in the usual way; the wall-paper need not be removed.

328. *I have other children in the house who have been exposed to infection; how soon may they go to school?*

The incubation period of Chicken-pox is nearly always fourteen days, but it may be prolonged for a few days longer. If the child has no signs of a rash for twenty days, dating from the *last* exposure, he is free to go to school.

329. *What are the symptoms of Smallpox?*

There are two varieties of the disease. One consists in the eruption being of distinct pimples, each separate; the other, in which the pimples have all run into one another—have become what is termed confluent. The former is seldom dangerous; the latter *always* dangerous. Smallpox that has been robbed of its virulence by the patient having been either already vaccinated, or by his having had a previous attack of smallpox, is ushered in with severe symptoms—with symptoms almost as severe as though the patient had not been already somewhat protected either by vaccination or by the previous attack of smallpox—that is to say, he has a shivering fit, great depression of spirits and debility, languor, sickness, headache, pains in the back and loins, and occasionally delirium. After the above symptoms have lasted about three days the eruption shows itself. The immense value of previous vaccination, or a previous attack of smallpox, now comes into play. In a case of *unprotected* smallpox, that is, where there has been *no* vaccination, on the appearance of the eruption all the above symptoms are *aggravated*, and the

danger begins ; while in the cases *after* vaccination, the moment the eruption shows itself the patient feels better, and, as a rule, rapidly recovers. The eruption of smallpox *after* vaccination varies materially from the eruption of the *unprotected* smallpox. The former eruption consists of rose-colored spots. They are much like those of chicken-pox, but more "shotty" to the feel, and perhaps appear in abundance. They may be confluent and the fever high, when quite suddenly the fever stops and the child is well. The spots become vesicular and dry. Matter in them is rarely seen, and there is usually no secondary fever. A rash like scarlatina may precede them. Sometimes there are all the signs of the fever, but no trace of an eruption. While in the latter disease—the *unprotected* smallpox—the "breaking-out" is composed entirely of pustules containing matter, and which pustules are more on the face than on any other part of the body. In the early stage the pimples or "breakings-out" feel like "hard shot" covered over with skin. There is generally a peculiar smell in both diseases—an odor once smelt never to be forgotten. "More than half of the children under five years of age unprotected by vaccination die" (Collie).

330. *Is Smallpox contagious?*

Smallpox is highly contagious. This ought to be borne in mind, as a person laboring under the disease must, if there be children in the house, either be sent away himself, or else the children ought to be banished. Another important piece of advice is—let *all* in the house—children and adults, one and all—be vaccinated, even if any or all have been previously vaccinated. Even when vaccination is performed as late as six days before the appearance of the eruption, it has a beneficial effect upon the disease.

331. *What is the treatment of Smallpox?*

The Medical Officer of Health must be informed at once of the occurrence. Isolate the patient, and send

for your medical attendant at once. Place the child in an airy well-ventilated apartment, the temperature of which is to be 60° Fahr. Adopt all the hygienic precautions that have been advocated under the heading Diphtheria (see Conversation 298). The following rules should be borne in mind :—(1) To moderate the fever by cooling drinks, cold or tepid sponging of the body. (2) To support the vital powers, if they flag, by milk and nourishing broths.

332. *What are the best means to prevent pitting in Smallpox?*

He ought to be desired neither to pick nor to rub the pustules. If he be too young to attend to these directions, his hands must be secured in bags, just large enough to hold them, and fastened round the wrists. The nails must be cut very close. To relieve itching olive oil should be used, or Boric Vaseline.

333. *When is a patient free from infection? When can he be discharged?*

When all the scabs have cleared off, and his skin is *quite clear.*

334. *When is it safe for a child to return to school after exposure to infection?*

The incubation period of smallpox is twelve days usually, but it may be longer. It will be safe for him to return to school if he shows no symptoms for fifteen days, dating from the last exposure.

335. *How would you distinguish between Smallpox and Chicken-pox?*

Smallpox may readily be distinguished from Chicken-pox by the former disease being, notwithstanding its modification, much more severe and the fever much more intense and prolonged *before* the eruption shows itself than chicken-pox; indeed, in chicken-pox there is frequently little or no fever either before or during the eruption. The chicken-pox pimples are soft, the smallpox pimples hard and "shotty." When the red

pimples come out in smallpox, whether it has been modified by vaccination or not, the fever *abates*; in chicken-pox the fever is increased if the eruption is abundant.

Smallpox pustules * have a particular predilection for the forehead, face, and wrists; this is not shown in the eruption of chicken-pox. The production of "matter" in the pimples of smallpox is the rule, in chicken-pox the exception.

The dimpling of smallpox pustules is the rule; in chicken-pox pustules, or vesicles, only a few of them show it, though in some cases nearly all may be formed in this way. Rose-colored spots, vesicles, pustules, and scabs are all seen at the same time in chicken-pox (showing that the eruption comes out in different crops); in smallpox the eruption is all of the same age, and consequently more or less of the same appearance. If a chickenpox vesicle or pustule is pricked, it usually collapses, though *not invariably;* if a smallpox pustule is pricked it will not collapse. Measly and scarlatina-like rashes are seen both in chicken-pox and smallpox, so the presence or absence of these will not afford much assistance in forming a correct view of the nature of the disease.

336. *Is Hooping-cough an inflammatory disease?*

Hooping-cough in itself is not inflammatory, it is purely spasmodic, but it is generally accompanied with more or less of bronchitis,—inflammation of the mucous membrane of the bronchial tubes,—on which account it is necessary, *in all cases* of hooping-cough, to consult a medical man, that he may watch the progress of the disease and nip inflammation in the bud.

337. *Will you have the goodness to give a brief history of Hooping-cough?*

Hooping-cough is emphatically a disease of the young; it is rare for adults to have it; if they do, they

* Vesicles are called pustules when they contain "matter."

usually suffer more severely than children. A child seldom has it but once in his life. It is highly contagious, and therefore frequently runs through a whole family of children, giving much annoyance, anxiety, and trouble to the mother and the nurses ; hence hooping-cough is much dreaded by them. It is amenable to treatment. Spring and summer are the best seasons of the year for the disease to occur. This complaint usually lasts from six to twelve weeks—sometimes for a much longer period, more especially if proper means are not employed to relieve it. It usually takes fourteen days to "breed" in the system before the "cold" commences, but it may be much less than this, perhaps five days. The disease is contracted by contact with one infected, and clothes may be the vehicle transferring the disease from the infected to the healthy, the wearer escaping. Free ventilation renders the poison much less potent, if not entirely innocuous. It occurs in epidemics, like measles, but isolated cases are always with us. Hooping-cough may either precede, attend, or follow an attack of measles, but the association is probably accidental only.

338. *What are the symptoms of Hooping-cough?*

Hooping-cough commences as a common cold and cough. The cough, for probably a week,—it may be less, it may be ten days or a fortnight,—increases in intensity ; at about which time is heard the characteristic "hoop." The attack of cough comes on in paroxysms. In a paroxysm, the child coughs so long and so violently, and *expires* so much air from the lungs without *inspiring* any, that at times he appears nearly exhausted and suffocated ; the veins of his neck swell ; his face is nearly purple ; his eyes, with the severe exertion, almost seem to start from their sockets. At length there is a sudden *inspiration* of air through the contracted opening of the upper part of the windpipe, causing the peculiar "hoop." After a little more

coughing he brings up some glairy phlegm from the chest; and sometimes he is at once relieved by *vomiting* food from the stomach. The strain may prove so violent as to cause him, quite helplessly, to pass his evacuations in his clothing. At the next paroxysm the same process is repeated, the child during the intervals, in a favorable case, appearing quite well, and after the cough is over, instantly returning either to his play or to his food. The paroxysm is not always of this character. The "hoop" may be the first stage of the paroxysm, and not the final one. The "hoop" is not the characteristic of hooping-cough: *the* characteristic is the peculiar paroxysmal cough. A child may pass through hooping-cough without the "hooping" noise putting in an appearance, or if so, but occasionally and exceptionally. Infants of one year old and under frequently do not make any "hooping" sound, but the paroxysm is present and perfectly marked and unmistakable.

Sometimes hooping-cough is ushered in by inflammation of the lungs, then the "hoops" may not appear, perhaps for weeks, if at all. When inflammation of the lungs comes on "hooping," as a rule, disappears. Generally after a paroxysm he is hungry, unless, indeed there be severe inflammation either of the chest or of the lungs. Sickness, as I before remarked, frequently accompanies hooping-cough. The child usually knows when an attack is coming on; he dreads it, and therefore tries to prevent it; he sometimes partially succeeds; but, if he does, it only makes the attack, when it does come, more severe. All causes of irritation and excitement ought, as much as possible, to be avoided, as passion is apt to bring on a severe paroxysm.

A new-born babe—an infant of one or two months old—commonly escapes the infection; but if, at that tender age he unfortunately catches hooping-cough, it is likely to fare harder with him than if he were older—

the younger the child the greater the risk. But still, in such a case, do not despair, as I have known numerous instances of new-born infants, with judicious care, recover perfectly from the attack, and thrive after it as though nothing of the kind had ever happened.

A new-born babe, laboring under hooping-cough, is liable to convulsions, which in this disease is one, indeed, of the great sources of danger. There is something suspicious about the early cold and cough of hooping-cough which should make a mother careful. The cough is a little more irritating than it usually is with an ordinary cold. Something seems to stick in the throat, which cannot be effectually coughed away, and the efforts to remove it are therefore frequent. The cough is particularly irritable at night. The child splutters, and coughs, and sneezes much more persistently than with an ordinary cold, and the cough is hoarse and dry. There is a little fever during this time ; the child may or may not be a little "out of sorts." When the paroxysmal cough arrives the face becomes puffy and rather dusky, and the eyes bloodshot. A small blood vessel sometimes bursts in the "white of the eye," and a blood-red splash takes its place. It is rare to meet with a complete "black eye"—all the "white of the eye" is then blood-red, and the skin of the eyelids and surrounding parts black and blue and bruised-looking. The violence of the cough does this, and little blood vessels may burst elsewhere—thus in the nose, the throat and the lungs, inside the eye (retina), the ear, the brain, and so on. Bleeding from the nose is common. If blood is coughed up in quantity it usually denotes inflammation of the lungs. When there is severe bronchitis the expectoration is very considerable. Three stages have usually been described as recurring in hooping-cough ; but that is not so, there are but two. Firstly, the ordinary cold and cough ; and secondly, the paroxysmal cough. Some paroxysms are attended by a

"hoop," some are not; sometimes one is prominent, sometimes the other—there is really no rule for this. At the Evelina Hospital all the varieties are recorded on a specially prepared chart. As the disease declines the coughs, with and without "hoop," gradually become less and less, and finally disappear. Children, when they have recovered from the disease, acquire a "whooping" habit. Months after, indeed a year or more after, an ordinary cough may sometimes be replaced by a paroxysmal cough. This occasional relapse into a bad habit does not mean a fresh acquisition of the complaint.

339. *What diseases are associated with, and what are the bad after effects of hooping cough?*

Diarrhea; severe bronchitis; inflammation of the lungs; collapse of the lungs; matter in the chest; emaciation from constant vomiting, or bad inflammation of the lungs, and so on; inflammation of the glottis (croup) in a mild form (I have only once had to perform tracheotomy for severe croup); convulsions (rarely a ruptured blood vessel in the brain); a drowsy state, which is very dangerous; tubercular disease of the glands of the lungs, the lungs and the brain, and so on; deformity of the chest.

Convulsions are always a source of anxiety. Your doctor should be sent for immediately. They may occur during a paroxysm, they may be associated with bad bronchitis and inflammation of the lungs, and they may mean commencing tubercular inflammation of the membranes of the brain.

340. *What is the treatment of hooping-cough?*

This infectious disease is not one of which the law of the land compels notification to the Medical Officer of Health; but if you will be guided by me, do not hesitate one moment, and promptly isolate the child. Isolation will doubtless induce a little more upset in the house, but the disease is sure to be less severe than if he be allowed to run about, quite apart from the benefit it

will confer on your own household and those of your neighbors in the freedom from the wholesale distribution of infection.

Isolate the child then; put him in an airy room at the top of the house on the sunny side, and devote the whole floor to him, if that be possible. Take care that the rooms be well ventilated, *for good air is essential to the cure.* The temperature should be kept night and day at 60° Fahr., and *no higher.* Avoid all draughts. His bronchial tubes and lungs are in an irritable condition, and will more readily inflame therefore. If they do the case becomes more serious.

If the child be not weaned, keep him entirely to the breast; if he be weaned, to a milk and farinaceous diet.

If the bronchitis attending the Hooping-cough be severe, confine him to his bed, and treat him as though it were simply a case of bronchitis.*

Let the spine and the chest be well rubbed, every night and morning, either with soap liniment or with a stimulating liniment (Prescription XVI. in Appendix).

Let him wear a broad band of new flannel, which should extend round his chest and stomach to his back. It ought to be changed every night and morning, in order that it may be dried before putting on again. To keep it in its place, it should be fastened by means of tapes and with shoulder-straps, or a cotton wool jacket can be made by quilting cotton wool on flannel. Cut out two pieces, a back and a front piece, which are to reach from the root of the neck to the level of the navel. Attach tapes to these quilted pieces so that they can be tied over the shoulders and along the sides, from the arm-pits downwards. If the child is very sick, and emaciates from lack of nourishment, he will have to be fed by the teaspoonful with nourishing food, such as peptonized beef soup, or beef juice, and by peptonized

* For the treatment of Bronchitis, see Conversation 284.

milk *immediately after the sickness.* In this way some of the nourishment is sure to be absorbed into the system before the next paroxysm arrives and expels it from the stomach.

Do not give either Paregoric or Syrup of White Poppies, unless the doctor orders them; do not dose him with quack medicine; do not give him stimulants, but rather give him plenty of nourishment, such as milk and farinaceous food; do not be afraid of his having fresh air, with freedom from draughts, and plenty of it —for fresh, pure air is the grand remedy, after all that can be said and done in hooping-cough.

341. *What is to be done during a paroxysm of hooping-cough?*

If the child be old enough, let him stand up; but if he be either too young or too feeble, raise his head, and bend his body a little forward; then support his back with one hand, and the forehead with the other. Let the phlegm, the moment it is within reach, be wiped with a soft handkerchief out of his mouth.

342. *For how long a period must the child be isolated?*

Six weeks *at least,* dating from the first "hoop" or paroxysmal cough; but the child is probably infectious as long as the cough lasts. When the cough is cured he may be considered free.

343. *Should my other children go to school?*

If they have been exposed to infection they cannot be considered free until fourteen days have elapsed, dating from the *last* exposure to infection. If at the end of that time the children are perfectly well, they may return to school.

344. *What shall I do with him when he is free from infection?*

There is nothing like change of air to a high, dry, healthy country place. Let him almost live in the open air. A farmhouse in a high, dry, and salubrious neighborhood is as good a place as can be chosen. If he be

not quite well in a short time, take him to the seaside ; the sea breeze will often, as if by magic, drive away any debility that may remain, and he will soon be rosy and fat again. If the hooping-cough has caused debility, give him cod-liver oil,—or cod-liver oil and iron in equal proportions,—a teaspoonful or two three times a day, giving it him on a full stomach, *after his meals.*

345. *Suppose my child should have a shivering fit, is it to be looked upon as an important symptom* ?

Certainly. Nearly all *serious* illnesses commence with a shivering fit : severe colds, influenza, inflammations of different organs, scarlet fever, measles, small-pox, and very many other diseases may begin in this way. If, therefore, your child should ever have a shivering fit, *instantly* send for a medical man, as delay might be dangerous. A few hours of judicious treatment at the commencement of an illness is frequently of more avail than days and weeks, nay months, of treatment, when disease has gained a firm footing. A *serious* disease often steals on insidiously, and we have perhaps only the shivering fit, which might be but a *slight* one, to tell us of its approach.

A *trifling* ailment, too, by neglecting the premonitory symptom, which at first might only be indicated by a *slight* shivering fit, will sometimes become a *mortal* disorder :—

> " The little rift within the lute,
> That by and by will make the music mute,
> And ever widening slowly silence all." *

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* The above extract from Tennyson is, in my humble opinion, one of the most beautiful pieces of poetry in the English language. It is a perfect gem, and a volume in itself, so truthful, so exquisite, so full of the most valuable reflections ; for instance ; (1) " The little rift within the lute,"—the little tubercle within the lung " that by and by will make the music mute, and ever widening slowly silence all," and the patient eventually dies of consumption. (2) The little rent—the little

346. *In case of a shivering fit, perhaps you will tell me what to do.*

Instantly have the bed warmed, and put the child to bed. Apply either a hot bottle or a hot brick, wrapped in flannel, to the soles of his feet. Put an extra blanket on his bed, and give him a cup of hot milk. As soon as the shivering fit is over, and he has become hot, gradually lessen the *extra* quantity of clothes on his bed, and take away the hot bottle or the hot brick from his feet. When your doctor arrives, he will find out the cause of the shivering fit, and prescribe accordingly.

347. *Have the goodness to describe the complaint of children called Mumps.*

The Mumps, inflammation of the "parotid" gland,—a gland under the ear,—is commonly ushered in with a slight feverish attack, but fever may be absent. After a short time, usually three or four days, but sometimes almost as soon as the child sickens, a swelling of stony hardness is noticed before and under the ear, and spreading on to the side of the face. One side commences, then the other usually follows suit. The color of the skin is not altered but it may be a trifle reddened. This lump is exceedingly painful, and continues painful and swollen for four or five days, or a week. It then gradually disappears, leaving not a trace behind. The swelling of mumps never gathers. It occurs, as a rule, but once in a lifetime. Sometimes the glands underneath the jaw bone (the sub-maxillary glands), one on either side, are swollen, as well as the "parotid" glands. The parotid glands may escape and the sub-maxillary glands alone be swollen.

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rift of a very minute vessel in the brain, produces an attack of apoplexy, and the patient dies. (3) Each and all of us, in one form or another, sooner or later, will have "the little rift within the lute." But why give more illustrations?—a little reflection will bring numerous examples to my fair reader's memory.

348. *Is the complaint of Mumps contagious?*

It is contagious, and has been known to run through a whole family or school; but it is not complicated unless, which is rarely the case, it leaves the "parotid" gland, and migrates to others parts of the body, as it may do in boys at puberty.

349. *How long is the disease "breeding"?*

Usually three weeks: it may be only fourteen days or as long as twenty-five days.

350. *What is the treatment of Mumps?*

Isolate the child. The disease need not be reported to the Medical Officer of Health. Foment the swelling, four or five times a day, with a flannel wrung out of hot camomile and poppy-head decoction; * and apply, every night, a linseed-meal poultice to the swollen gland or glands. For a few days let the little patient live on bread and milk, light puddings, and arrowroot. Keep him in a well-ventilated room. Give him a little mild, aperient medicine. He will be free from infection in three weeks' time, dating from the first appearance of the swelling. Mumps is very infectious from the commencement of the disease, and gradually becomes less and less.

A child may be considered free from the disease if he does not develop it for twenty-five clear days, dating from the last exposure. Do not send such a child to school until he is free,

351. *My child looks pale, his limbs seem to hurt him when I touch them, for he cries, and he does not use them properly. One or two of the large joints seem a little swollen to me, and perhaps there is a faint blush on them. I also notice that one joint which was swollen yesterday is not so to-day. He seems to be a little feverish. What treatment do you advise?*

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* Four poppy-heads and four ounces of camomile flowers to be boiled in four pints of water for half an hour, and then strained to make the decoction.

You have heard of the ailment called Rheumatism? I should think your child has Rheumatism, in other words, Rheumatic Fever. Send for a doctor at once. Put on a flannel night-shirt, wrap him in the blankets, and give him milk *only*, no beef tea or meat broths. This is "the little rift within the lute," and if you do not obtain instant medical treatment, his heart will almost certainly become diseased, and he will be a cripple for life, if not worse. The disease seems mild to you, a mere triviality perhaps, but it is nothing of the sort, so send for a medical man without delay. I would here warn you about attributing pains in the limbs to growth —"growing pains" they are often called. If your child has pains in the limbs, do not look upon them as trivialities to be accounted for by the progress of growth. They may mean rheumatism. They may denote several other diseases, but it is only a medical man who can determine as to their nature, and advise you as to their appropriate treatment; therefore, if a child complains of pains in his limbs, or if his limbs seem to be painful, seek advice.

352. *What is St. Vitus's Dance?*

It is a disorder of the brain, the outward and visible sign of which is muscular movements, often combined with muscular weakness, and blunting of the intellect. The muscular movements, which arise spontaneously, are of a purposeless jerking character, uncontrolled by, or but partially controlled by, the *will*, which is weak and powerless to keep them in subjection. The *emotions*, on the contrary, are capable of setting the muscles in action, and of intensifying their spasmodic movements. Voluntary movements, if the power remains to execute them, are greatly hampered and interfered with. They are conducted in a jerky, erratic manner, or their purpose may be entirely defeated by the insane behavior of opposing muscles. Recovery is the rule. Girls are attacked more frequently than boys in

the proportion of five to two. It usually occurs between the ages of six and fifteen years.

353. *What are the causes of St. Vitus's Dance?*

A highly excitable, nervous, anemic girl is specially liable to an attack, more so if she has but lately recovered from some severe illness, such as Scarlet Fever or Typhoid Fever. Children with a nervous inheritance are predisposed to it, and the nature of the brain of the female sex, in which the emotional elements are very highly developed, acts as an additional predisposing cause. The intellectual forcing-houses of the present day have much to answer for in the way of preparing the soil for nervous attacks of all kinds.

"All work and no play,
Makes Jack a dull boy!"

and they make Jill a dull girl as well. Many brains will not, nay, they cannot, respond to the forcing process. The wear and tear, let alone the anxiety and worry of incessant competition, are too great for them, and they simply break down under the hourly, daily strain. The brain will the more readily succumb if the body is weak and anemic. And the body will be weak and anemic if the child does not obtain a sufficiency of *wholesome* nourishing food, plenty of fresh air, and plenty of play. The old saying, "Mens sana in corpore sano," a healthy mind in a healthy body, was uttered centuries ago, and to-day the truth of it cannot be controverted. Ground down by the modern intellectual Car of Juggernaut the intellectual centers of the brain become weakened instead of strengthened, and the emotions freed from proper control begin to unpleasantly assert themselves. At this time perhaps some sudden mental shock completes the mischief, which has been brewing for months past. Many are the explanations which are given for the "last straw," thus—"being suddenly attacked by a dog;" "being followed by an intoxicated man in the street;" "a sud-

den alarm of fire ;" "being frightened on running across the road ;" "a bad nightmare," are just a few examples of the sort of nervous shock which may be held responsible.

When the attack has once been induced, you have only to watch a child suffering from St. Vitus's Dance to see how powerful and how easily excited the emotions are ; how they play upon the nervous muscular apparatus of the brain, and set it, all uncontrolled as it is, into grotesque and purposeless action. How utterly powerless is the will !

Not only is there a "nervous" element in its causation, which in itself is sufficient without the additional one of a sudden mental shock, but Rheumatism and St. Vitus's Dance often go hand in hand. St. Vitus's Dance may follow Rheumatism, Rheumatism may follow St. Vitus's Dance, they may be present together. There is a fell partnership between the two diseases, the articles of which are not yet made public—but they will be some day. There is also probably some blood disorder at work.

354. *What are the symptoms of St. Vitus's Dance?*

We will take a simple case to begin with, which is likely to pass unheeded and be ascribed to other causes.

The mother or schoolmistress first notices that the child is inattentive, she is dull and listless, and mopes, or is peevish and irritable. She cannot write her exercise, as well as she used to do, her sewing is badly done, her pianoforte performances are slovenly. She does not dress herself so deftly as she used to do, but fumbles when doing up her garments.

She is very probably unjustly punished for her lack of attention, which makes matters worse. She is fidgety, and will not keep still. She drags her leg as she walks, and is not sufficiently precise when taking exercise, and "behaves badly," and to add to the enormity of her

offense she sometimes "makes grimaces in the street." The child's companions may accuse her of "making faces." This sort of thing may go on for days or weeks. Occasionally very obvious loss of power in a limb, which comes on gradually (this only applies to the arms) is the most noticeable thing. This is sometimes spoken of as "*Paralytic chorea.*" Some slight twitchings of the limb itself, or of the face, or elsewhere, will be detected in such a case.

Now, let us watch a child who is much worse than this. Here there is something unmistakably amiss, inattention and slovenliness, often unjustly followed by punishment, cannot now be the explanation. The grimaces are very pronounced, and are quite purposeless. Her expression is dull, vacant and listless, and she will readily laugh or burst into tears for little if any provocation, perhaps quite inopportunely. If told to protrude her tongue there is some hesitation, it then flies out like a jack-in-the-box, and is returned into the mouth with a snap. As she stands before us her shoulders are shrugged, her head is tossed, and her eyeballs jerked. First the arm is thrown in front of the body, then behind it, it twists and contorts, the fingers are widely separated and opened, then shut, the palms of the hands are splayed, she sways her body. If the child is given a cup of milk to drink it is either dropped or spilled, or with much jerkiness of movement the cup is finally dashed to the mouth when the fluid is gulped down. The movements of the lower limbs are not so marked as those of the upper, but as she stands she cannot keep still, she acts as if she were on hot bricks, the feet are shuffled they cross one another, she wriggles and twists, and if told to walk she stumbles or makes a rush for the place she wants to reach. When sitting on a chair she cannot keep still, and fidgets about. She breathes in an irregular, jerky fashion. She cannot talk properly, from want of control over the muscles

which are used for that purpose—she splutters and answers questions in an explosive fashion.

Finally, we will review one of the worst cases. The jerking purposeless movements of the muscles are all exaggerated—they may be so violent as to throw the child out of bed. She wastes. Her limbs become bruised and sore, the elbows, wrists, knuckles and knees break out into sores from the frequent chafing, to which the skin is rudely subjected. The child does not talk, either from want of control over the muscles, or from intellectual defect. She passes her evacuations in the bed. The danger is here great. She may die from exhaustion or want of sleep, she may have high fever, or become unconscious, or blood poisoning may happen from the unhealthy sores on her body. These severe cases may become maniacal.

In St. Vitus's Dance any emotional disturbance will increase the movements—simply looking at the child will develop or intensify them. They disappear during sleep and when the child is *at rest* in bed, if the case is not a very serious one, or has been in bed for a few days, no or hardly any movements will be seen. One side of the body is usually affected first, and when both sides become involved the movements of one side are often in excess of those of the other. Weakness of the limbs is usually associated with the movements. Children are often mentally dull, but in some instances the mental characteristics are not altered. Constipation frequently attends the disease, and the onset of fever is unusual, should the case happen not to be a very severe one, unless there is some rheumatic complication. A child may have one, two, three or more attacks. It usually lasts from two to three months, sometimes less, often more.

355. *What is the treatment of St. Vitus's Dance?*

If the child be attending school, withdraw her, and put aside her books. A week or two in bed for a mild

case, keeping the child as quiet as possible, is an excellent remedy. For a marked case rest in bed, milk and farinaceous puddings, freedom from all emotional disturbances, and gentle regulation of the bowels will work wonders. A child with St. Vitus's Dance is better under the control of a stranger, such as a trained nurse, than in its mother's charge. The treatment is in a large measure moral, and however competent a mother might be to exercise her powers on behalf of the child of a stranger, she can hardly be expected to excel in this respect in the management of her own offspring. The choicest of heaven's gifts, the maternal sympathy, will prove too strong for her judgment. No, in a marked case of St. Vitus's Dance take my advice, and have a nurse, a kind, firm, judicious nurse. In severe cases the administration of nourishment becomes a source of anxiety, and the child may have to be fed by passing a tube into the stomach, or by the bowel. If the child throws herself about violently, put her into a bed, padding the sides with pillows, and place a nurse in special charge. A hammock may be better than a bed. On no account try to control the violence by tying the hands or legs. Use a water bed if bed sores threaten. If there is much mental dulness and apathy, it will, perhaps, be necessary to have a macintosh in use, because the child is liable to pass her evacuations in the bed. Strict attention must be paid to cleanliness, or bed sores will be the more readily induced. I do not advise you to undertake the treatment of your child yourself. You ought to send for a doctor, because St. Vitus's Dance and Rheumatism are often associated together. Heart disease may steal upon the child without the slightest suspicion on your part. Frequent examinations of the heart are always advisable. St. Vitus's Dance, apart from heart troubles, may be dangerous to life—children do occasionally die from this, and they

require great skill in the way of treatment to bring about a successful issue.

An attack, which to you would be quite indistinguishable from St. Vitus's Dance, might indicate a tumor in the brain !

If, when washing the child, you should discover nodules, the size of an almond, more or less, under the skin at the back of the head, about the shoulder blades, the spine, the hips or the joints, direct your doctor's attention to the occurrence. They are called "rheumatic nodules."

When the child has sufficiently recovered, she may be allowed to get up, provided any remaining movements are slight, and are not increased thereby. On recovery, gymnastic exercises, calisthenics, the skipping-rope, and so on, will tend to once again bring the errant nervous centers, regulating muscular movements, under the full control of the will. Change of air and scene are useful, provided they are taken at some *quiet* country house, under the charge of a suitable person.

356. *Is there not a condition of fidgetiness noticeable in some nervous children which might be mistaken for St. Vitus's Dance?*

Yes, there is. Such children are highly excitable and emotional. Under emotional excitement they wink their eyes, they grimace, perhaps they are unduly fidgety with their fingers, much less frequently they are unable to sit still. If this was a trifle more pronounced it would be called St. Vitus's Dance, and without careful watching it would be impossible to assert that it is not so. They may be considered border-land cases. See if the child is being over-pressed at school, if the home-lessons are a worry, and mean sitting up later than is advisable. Send the child to bed early—she must not be permitted to sit up to all hours, as many such children are allowed to do. This condition should certainly be looked upon as a danger signal, and you had

better seek advice. Plenty of sleep, plenty of fresh air, plenty of good food *at meal-times*, freedom from excitement of all kinds, plenty of play, firm and judicious moral control and a *few lessons* are the requisites.

357. *Please tell me something about boils.*

Boils are rarely seen in infants, in young children seldom, but schoolboys often suffer from them—indeed there may be quite an epidemic of boils in the school. Should an infant soon after birth suffer from "boils," you had better take him to see the doctor, as he may have some constitutional disorder which will require tonic treatment. Boils are due to germs which, finding their way into the hair-sacs, set up acute inflammation, and so acute is it that the central part of the boil dies and comes away later on as the core.

Boils are contagious. If you have other children remember this. If the child conveys the matter from the boil to his skin by scratching, he may have a "breaking-out" or a boil may arise. The germs are more likely to be rubbed into the skin where the clothes cause friction, therefore, as might be expected, the neck and the buttocks are favorite situations. Boils may come out singly or in crops.

358. *What is the treatment of Boils?*

Do not use poultices : if you do fresh boils will arise. The best application is a Boracic Acid fomentation(*vide* Conversations 367 and 426), not too large, which should be changed every hour or two. When the boil is very red, inflamed and painful, a purge should be given. Lancing will relieve the pain, but it is better not to resort to this in children, as the fear and terror such inspires will do more harm than the lancing will do good. If you look carefully at the center of a boil you will see a hair protruding. This should be always pulled out with a pair of pincers. A channel will then be formed by which the matter can escape. The fomentation will soon cause the boil to "break" and as soon as the core

comes away it will commence to heal. Either continue the fomentations, or dust the part with a powder containing one part Iodoform and three parts Boracic Acid, covering all with a dressing of Boracic Lint.

If the child is in a low state of health, you had better take him to your doctor and have him examined. Send him for a change to the seaside. If there is no constitutional disturbance, local treatment to the boil will alone be necessary.

359. *Do children suffer from Typhoid Fever?*

Yes; cases sometimes occur in infants a few months old, but it is not usual to meet with it until four years of age. Children and young people are more susceptible to the disease than adults, but they have it in a milder form. The onset is indefinite. The child is "out of sorts," sits over the fire, is dull, complains of headache, and is sick. He is a trifle feverish during the day, but the fever is worse at night; his face is flushed and he is delirious. He suffers from sweats. During the second week his stomach begins to swell, and rose-colored pimples, coming out in crops, which last two, three, or four days, make their appearance. There are just a few of them on the body, or they may be very numerous all over him. He suffers perhaps from looseness of the bowels, but is often constipated. Occasionally the motions are typical—pea-soup like. The tongue is coated with fur, but clean at the tip and edges; later the fur darkens, and dried secretions collect about the lips, teeth and gums. Finally it is red and "beefy" looking. The disease lasts from ten days to three weeks. Relapses are not uncommon. In this disease the bowels are nearly always ulcerated. Death may occur from heart failure, or lung complications, or perforation of the bowel, or blood poisoning. Death from hemorrhage from the bowel in children is rare—bleeding may be profuse and yet they recover. The child may waste and die.

The case must be reported to the Medical Officer of Health. The child is to be isolated and the same hygienic precautions are to be adopted as in diphtheria (see Conversation 298). The motions and soiled bed linen will convey the disease (see Conversation 380). Solid food must not be given unless the doctor orders it—disobedience in this respect may lead to perforation of the bowel and death. If during the height of the fever the temperature suddenly falls to normal, or below it, and the child appears to be much worse, send for the doctor. If there be bleeding from the bowels with this, keep him very quiet and apply cloths wrung out in ice-cold water to the abdomen. The disease is conveyed by drain air, contaminated water, contaminated milk. It takes eight to twenty-three days to "breed" in the system. The child is not free from infection until fourteen days after the subsidence of the fever. Constipation is usually troublesome during convalescence and for some time after.

360. *What are symptoms of Earache?*

A young child screaming shrilly, violently, and continuously, is oftentimes owing to the earache. If a baby, the child is restless, he rolls his head, puts his hands up to his head or ear, and *refuses to rest his head on the affected side.* Carefully, therefore, examine each ear, and ascertain if there be any discharge ; if there be, the cause will be explained. The inflammation may subside or matter form.

If an older child, he will complain of earache.

Screaming from earache may be distinguished from the screaming from bowel-ache by the former (earache) being more continuous—indeed, being one continued scream, and from the child putting his hand to his head ; while, in the latter (bowel-ache), the pain is more of a coming and going character, and he draws up his legs to his bowels. Again in the former (earache), the secretions from the bowels are natural ;

while, in the latter (bowel-ache), the secretions from the bowels are usually depraved, and probably offensive. But a careful examination of the ear will generally at once decide the nature of the case. If matter forms, it breaks the drum of the ear, and so passes out. The symptoms are then relieved. The drum may heal, or a permanent hole is left in it. If attention is paid to the disorder *at once*, it probably will heal, as the opening is slit-like, and readily joins, but if an unhealthy discharge is allowed to go on for a long time, the slit becomes a hole, and the hole will never heal.

Pent-up matter in the ear may lead to all the signs of acute brain disease, and the baby may even die.

Inflammation of the ear may arise from cold, from extension to the ear from sore throat, adenoid vegetations (see Conversation 167), scarlet fever, measles, diphtheria, hooping-cough, and so on. Earache may be complained of, *without inflammation of the ear*, in sore throat, decayed teeth, and painful glands behind the jaw.

361. *What is the best remedy for Earache?*

Send for a doctor at once. Apply to the ear a small flannel bag, filled with hot salt—as hot as can be comfortably borne, or foment the ear with a flannel wrung out of hot camomile and poppy-head decoction. A roasted onion, enclosed in muslin applied to the ear, is an old-fashioned and favorite remedy, and may, if the bag of hot salt, or if the hot fomentation do not relieve be tried. Put into the ear, but not very far, a small piece of cotton wool, moistened with warm olive oil, or with a few drops of laudanum. Take care that the wool is always removed before a fresh piece be substituted, as if it be allowed to remain in any length of time, it may produce a discharge from the ear. You may also try a warm linseed-meal poultice applied to the back of the ear. Avoid all *cold* applications. A leech or two placed on the prominent piece of bone at the

back of the ear is also useful. When the doctor arrives he may be able to relieve all the symptoms by blowing into the ear, by way of the Eustachian tube, through the nose with a specially constructed apparatus. This will often allow the inflammatory materials to escape from the ear without breaking through the drum, as they otherwise might do. Should matter have formed, and an exit cannot be found for it in the way I have suggested, then the doctor may be able to give great relief by making a small puncture in the drum. This will free the matter, and if suitable remedies are applied and the Eustachian tube is kept open in the way I have told you, healing will soon take place. In my next Conversation I intend to tell you about chronic discharges from the ear, and you will then understand the importance of seeking skilled medical advice. If your child has enlarged tonsils and adenoid vegetations, you must have them *removed* without delay. Putting off the evil day is dangerous. I look upon "adenoid vegetations" as the worst offender in the production of recurrent attacks of earache, and an examination should be made to determine whether the complaint is present or not.

A knitted or crocheted hat, with woolen rosettes over the ears, is, in the winter time, an excellent hat for a child subject to earache. The hat may be procured at any dry goods store.

362. *What are the causes of chronic discharges from the ear?*

They are left after attacks of acute inflammation of the ear which have proceeded to the formation of matter and rupture of the drum, or they may be due to tubercular disease.

363. *What is the treatment?*

The ear *must* be kept clean. Syringe it frequently with warm Boracic Lotion, five grains to an ounce of water, if the discharge is profuse. If the discharge is

slight, blow powdered Boracic Acid into the ear night and morning by means of a quill. Improve the general health by giving cod-liver oil and iron and send him to the sea coast. If change of air be not practicable, great attention should be paid to ventilation. Other methods requiring special knowledge and skill must be undertaken by a doctor—they are sometimes very important. If the skin behind the ear becomes swollen and red, and the ear painful, send for your doctor *without delay* —an operation will be necessary.

364. *Are there any dangers arising from discharges from the ear?*

Yes, several. They are paralysis of the face, abscess of the brain, inflammation of the membranes of the brain, and blood poisoning. Dangerous symptoms are likely to arise if the ear is not kept clean. *Always keep a discharging ear sweet and clean;* not to do so is courting death!

365. *Is it dangerous to box a child's ears?*

Yes, very. You must never box a child's ears. You may rupture the drum, acute inflammation of the ear may arise from the violence, and serious brain troubles follow. It is cruel and cowardly to box a child's ears, —choose some less vulnerable spot for chastisement, should that be necessary.

366. *What are the causes of Deafness?*

Apart from the diseases just mentioned, adenoid vegetations (see Conversation 167) are a fertile source of deafness, and when chronic changes have taken place in the ear often but little good can be done in the way of treatment. Prevention is better than cure, and adenoid vegetations should always be removed as soon as possible, to ensure against such a risk. Enlarged tonsils will also cause deafness. Wax in the ears is an occasional cause. One poor little fellow, the son of a clergyman, aged seven years, had been frequently punished for constant *inattention*, extending over a period of two or three

years. The little man was not inattentive in the least —he had both ears filled with hard wax! When this was removed he was as bright as could be wished. This should prove a lesson to you. If a child is continually inattentive have his hearing tested, for he may be deaf. A child may be born deaf. Deafness may arise from acute destructive inflammation of the nervous mechanism of the ear in scarlet fever. It may be owing to a constitutional complaint, and it often arises in typhoid fever.

367. *What is the treatment of "sty" on the eyelid?*

Bathe the eye frequently with warm Boracic Lotion, five grains to the ounce of water, and apply, every night at bedtime, a Boracic Acid fomentation by wringing out Boracic Lint in a little boiling water, applying it to the eye and covering it with pink jaconet. Place a clean pad of cotton wool over all, and fix it with a bandage.

368. *My child squints, what is the best treatment?*

Squinting is a "cast in the eye" is usually first detected when the infant's attention is attracted to near objects. It may affect either eye indifferently, or only one eye constantly. The continuous wearing of spectacles commencing at 2½ years of age, may cure the deformity, but if not, an operation will be necessary. If one eye squints and the deformity is neglected, great loss of vision in the squinting eye will follow, even if the eye is sound at the commencement, and not, as sometimes happens, congenitally or otherwise defective. A doctor alone can decide the cause and advise as to the appropriate treatment.

369. *What is Ophthalmia?*

It is a disease of the mucous membrane covering part of the eyeball and the inside of the lids. If you detect a small speck of matter on the inside of a child's eye, near the nose, between the lids, and if he complains of pain or smarting, or a feeling of grit inside the eyes,

and the eyes look blood-shot, take him to see a doctor. The matter from the eyes may be profuse and the lids may be swollen. Sometimes ophthalmia is very serious, and the clear part of the eye, "the sight," may be attacked. If that be so, he may lose his sight, or at least have it very seriously damaged. Ophthalmia occurring soon after birth *is very dangerous;* many people go through life blind from this cause alone (see Conversation 28). Sometimes the under surfaces of the lids are diseased and cause this complaint. As you will not be able to tell the difference between a simple case of ophthalmia and a bad case it is very necessary for you to see a doctor at once, as in the latter instance very skilful treatment will be required. Ophthalmia is "catching"—the disease is conveyed by using the same sponges, flannels, towels, and so on.

Children may convey the matter from the eyes to the skin, and cause "breakings-out"; conversely the matter from "breakings-out" may be conveyed to the eyes and cause ophthalmia.

370. *My child cannot open his eyes, the light seems to hurt him so: what is the matter?*

He probably has an ulcer on the "sight" of the eye. You must consult a doctor for the complaint, as it may prove serious and the eye even be lost.

When the ulcer heals it leaves a scar; these scars, if not too extensive, disappear under treatment.

Treatment must extend over many months or years. An operation may be necessary, so as to allow the light to pass into the eye through any clear part of the "sight" that may be left, and by this means some vision is obtained. Sometimes the sight is so altered by these scars when they clear away, that it will be necessary for him to be fitted with a special kind of spectacles. If a child has "breakings-out" or a "running" from from the ears, see that he does not rub the matter in the eyes. An ulcer may be started in this way.

371. *If a child have large bowels, what would you recommend as likely to reduce their size?*

This, although it appears to be a very simple question, is in reality not so.

Infants may suffer with a swollen "stomach," because they have "wind" in the bowels, the result of indigestion. For the cure of this I must refer you to the Conversation on feeding (see Conversations Nos. 47 and 49 to 62). If an infant is subject to sickness and looseness of the bowels, appearing on and off over a period of time of some months, the child wastes and the "stomach" becomes swollen. For an account of this and its treatment see Conversations 149 and 150. Children of two years and over, who suffer from indigestion, are not, as a rule, subject to either prolonged sickness or diarrhea, though occasionally they have slight attacks of these. Their tongues are covered with fur, or are red and angry-looking. Their bowels are confined, the motions being pale and pasty-looking, mixed with "jelly." They are a little feverish at night, they have capricious appetites—at one time ravenous, at another requiring tempting food, they suffer from stomach-ache, their bodies lose flesh, their "stomachs" become swollen, and they are rickety. Sometimes they pass quantities of "jelly" by the bowel, and on this account the disorder has been called "Mucous Disease," but it is only the same complaint, with this feature as a prominent symptom. The condition I have just described is one of catarrh of the stomach and bowels. The wasting and enlargement of the "stomach" suggest to their mothers that they are suffering from "consumptive bowels." If their bowels are not "consumptive," and in the large majority of these cases they are certainly not, yet their bowels are not unlikely to become so, unless they are taken in hand by the doctor. When the bowels are in a state of chronic catarrh, this region forms an inviting spot for tubercle germs

(tubercle bacilli) to take up their abode, and the bowels or the glands, one or both of them, are attacked by a destructive disease.

Chronic catarrh of the bowels can only be cured by the most careful dieting and the judicious use of medicines. You must, therefore, consult a doctor, carry out all his directions most carefully and loyally—much will depend upon your implicit obedience—and have the child cured as speedily as possible. Do not anticipate, however, that the disease can be cured in a week or so. It has taken many months of neglect and foolish indulgence to bring about this result. If a child is fed on unsuitable food; if he is allowed to stuff himself with fancy biscuits, sweets, and other delicacies, at all hours of the day; if, instead of his own plain and wholesome fare, he is given kickshaws and highly-seasoned articles, which are required to stimulate the jaded appetites of his parents; if, when he cannot take his breakfast, his mother gets into a perfect stew and stuffs him with a very early and very appetizing luncheon, instead of, like a wise woman, allowing him to go without until the next meal; if he is allowed to have his food with his parents, and screams and cries for everything indigestible he sees on the table, and gets it; if every hygienic rule is outraged and set at defiance; if the child does not have plain, simple food at *meal-times*, plenty of exercise, plenty of fresh air, retire early to bed, and have plenty of sleep in a well-ventilated room; then he will be a sufferer from chronic indigestion and catarrh of the bowels.

To tell the difference between chronic catarrh of the bowels and consumptive bowels (tubercular peritonitis), is the doctor's province, and this often requires a very careful examination, though, in some cases, the difficulties of diagnosis are not so great as they are in others. The treatment of tubercular peritonitis must be undertaken by a doctor. There are many other maladies

which cause enlargement of the "stomach," therefore, in *all* cases it would be more prudent of you to seek advice and have the nature of the enlargement determined, when the appropriate treatment will be explained.

372. *What are the best aperients for a child?*

If it be *actually* necessary to give him opening medicine, one or two teaspoonfuls of Syrup of Senna, repeated, if necessary, in four hours, will generally answer the purpose. Aperient medicine should be made palatable; now it can be given in compressed form, as tablets or capsules or palatinoids. Comp. Powder of Rhubarb, or Pulv. Rhei. Co., is an admirable aperient, and can be given in the palatable form of the tablet. Lenitive Electuary (Compound Confection of Senna) is another excellent aperient for the young, it being mild in its operation, and pleasant to take—a child fancying it is nothing more than jam, which it much resembles both in appearance and in taste. The dose is half or one teaspoonful early in the morning occasionally. Senna is an admirable aperient for a child, and is a safe one, which is more than can be said of many others. It is worthy of note that "the taste of Senna may be concealed by sweetening the infusion,* adding milk, and drinking as ordinary tea, which, when thus prepared, it much resembles."† Honey, too, is a nice aperient for a child—a teaspoonful ought to be given either by itself, or spread on a slice of bread.

Some mothers are in the habit of giving their chil-

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*Infusion of Senna may be procured of any respectable druggist. It will take about one or two tablespoonfuls, or even more, of the infusion (according to the age of the child, and the obstinacy of the bowels), to act as an aperient. Of course, you yourself will be able, from time to time, as the need arises, to add the milk and the sugar, and thus to make it palatable. It ought to be given warm, so as the more to resemble tea.

† Waring's *Manual of Practical Therapeutics.*

dren jalap gingerbread. I do not approve of it, as Jalap is a drastic, griping purgative; besides, Jalap is very nasty to take—nothing will make it palatable.

Fluid Magnesia—Solution of Carbonate of Magnesia—is a good aperient for a child; and, as it has very little taste, is readily given, more especially if made palatable by the addition either of a little syrup or of brown sugar. The advantages which it has over the old solid form are, that it is colorless and nearly tasteless, and never forms concretions in the bowels, as the *solid* magnesia, if persevered in for any length of time, sometimes does. A child of two or three years old may take one or two tablespoonfuls of the fluid, either by itself or in his food, repeating it every four hours until the bowels be open. When the child is old enough to drink the draught off *immediately*, the addition of one or two teaspoonfuls of lemon juice to each dose of the Fluid Magnesia makes a pleasant effervescing draught, and increases its efficacy as an aperient.

Bran-bread* and molasses will frequently open the bowels; and as molasses is wholesome, it may be substituted for butter when the bowels are inclined to be costive. A roasted apple, eaten with *raw* sugar, is another excellent mild aperient for a child. Milk gruel—that is to say, milk thickened with oatmeal—forms an excellent food for him, and often keeps his bowels regular, and thus (*which is a very important consideration*) supersedes the necessity of giving him an aperient. An orange (taking care he does not eat the peel or the pulp, or a fig after dinner, or a few Muscatel raisins, will frequently regulate the bowels. Syrup of figs is now made and (if pure) can be recommended.

Stewed prunes form another admirable remedy for the costiveness of a child. The manner of stewing them is

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*One part of bran to three parts of flour, mixed together and made into bread.

as follows :—Put a pound of prunes in a brown jar, add two tablespoonfuls of *raw* sugar, then cover the prunes and the sugar with cold water ; place them in the oven, and let them stew for four hours. A child should every morning eat half a dozen or a dozen of them, until the bowels be relieved, taking care that he does not swallow the stones. Stewed prunes may be given in molasses—molasses increasing the aperient properties of the prunes.

A suppository is a mild and ready way of opening the bowels of a child. Glycerine suppositories are efficacious. If the suppositories cannot be obtained, use one or two teaspoonfuls of pure glycerine, and inject this up the back passage by means of a small syringe, which can be obtained at any respectable druggist's. The bowels usually act in five minutes or less, but sometimes take a little longer.

Another excellent method of opening a child's bowels is by means of an enema of warm water—from half a teacupful to a teacupful, or even more, according to the age of the child. I cannot speak too highly of this plan as a remedy for costiveness, as it entirely, in the generality of cases, prevents the necessity of administering a particle of aperient medicine by the mouth. The fact of its doing so stamps it as a most valuable remedy—opening physic being, as a rule, most objectionable and injurious to a child's bowels. Bear this fact—for it is a fact—in mind, and let it be always remembered.

373. *What are the most frequent causes of protrusion of the lower bowel?*

The too common and reprehensible practise of a parent administering frequent aperients to her child. Another cause is allowing him to remain for a quarter of an hour or more at a time on his chair ; this induces him to strain, and to force the gut down. Anything that produces violent straining conduces to prolapse of the bowel. To illustrate this I will mention constipation, diarrhea, worms, a polypus in the bowel, coughing, a

condition of the parts necessitating circumcision, a too narrow orifice of the "pipe," and so on.

374. *What are the remedies?*

If the protrusion of the bowel has been brought on by the abuse of aperients, abstain for the future from giving them; but if medicine be absolutely required, give the mildest—such as Syrup of Senna—*and the less of this the better.*

If the *external* application of a purgative will have the desired effect, it will, in such cases, be better than the *internal* administration of aperients. Castor oil used as a liniment is a good one for the purpose. Let the bowels be well rubbed, every night and morning, for five minutes at a time with the oil.

A wet compress to the bowels will frequently open them, and will thus do away with the necessity of giving an aperient—*a most important consideration.* Fold a napkin in six thicknesses, soak it in *cold* water, and apply it to the bowels; over this put a thin covering or sheet of gutta-percha, or a piece of oiled silk; keep it in its place with a broad flannel roller, and let it remain on the bowels for three or four hours, or until they be opened.

Try what diet will do, as opening the bowels by a regulated diet is far preferable to the giving of aperients. Let him have bran-bread, or Pure Scotch Oatmeal made into gruel with new milk. Let him eat stewed prunes, stewed rhubarb, roasted apples, raspberries, the inside of grapes, figs, etc. Give him early every morning a draught of *cold* water.

Let me again urge you *not* to give aperients in these cases, or in any case, unless you are absolutely compelled. By following my advice you will save yourself an immense deal of trouble, and your child a long catalogue of misery. Again, I say, look well into the matter, and whenever it be practicable avoid purgatives.

Now, with regard to the best manner of returning the bowel, lay the child upon the bed on his face and bowels,

with his hips a little raised ; then smear vaseline on the forefinger of your right hand (taking care that the nail be cut close), and gently with your forefinger press the bowel into its proper place. Remember, if the above methods be observed, you cannot do the slightest injury to the bowel ; and the sooner it be returned, the better it will be for the child. The nurse, every time he has a motion, must see that the bowel does not come down, and if it does, she ought instantly to return it. You had better keep him lying down in bed for a few days, and allow the motions to be passed in a diaper. *He must not sit up to stool.* When the bowel has been returned, if it shows any tendency to force down again, place a pad of lint over the back passage, fixing it tightly in the same way that a diaper is suspended from the waist ; or should this method fail, strap the buttocks close together by carrying completely round them abroad piece of strapping with over-lapping edges. The method of treatment recommended is often by itself sufficient to bring about a cure.

Another excellent remedy for the protrusion of the lower bowel, is to use, every morning, a cold salt and water sitz-bath. There need not be more than a depth of three inches of water in the bath ; a small handful of table salt should be dissolved in the water ; a dash of warm water in the winter time must be added, to take off the extreme chill. The child ought not to be allowed to sit in the bath for more than one minute, or whilst the mother can count a hundred, taking care, the while, to throw either a square of flannel or a small shawl over his shoulders. The sitz-bath ought to be continued for months, or until the complaint be removed. I cannot speak in too high praise of these baths. Should you notice any sores on the protruded part, or should you be unable to reduce it, you had better call in a doctor. Should you fail to cure it by the mild measures I have suggested, advice should be sought, as some stronger

application may be necessary. *If treatment is to be successful the cause must first be removed, or the bowel will again protrude.* If circumcision or other operation be necessary, have this attended to at once.

375. *Do you advise me, everg spring and fall, to give my child sulphur to purify and sweeten his blood, and as a preventive medicine?*

Certainly not; if you wish to take away his appetite, and to weaken and depress him, give sulphur! Sulphur is not a remedy fit for a child's stomach. The principal use and value of sulphur is as an external application in itch, and as an external remedy, mixed with other laxatives, in piles—piles being a complaint of adults. In olden times poor unfortunate children were dosed, every spring and fall, with sulphur and molasses to sweeten their blood! Fortunately for the present race, there is not so much of that folly practised, but still there is room for improvement. To dose a *healthy* child with physic is the grossest absurdity. No, the less physic a delicate child has the better it will be for him, but physic to a healthy child is downright poison! And sulphur, of all medicines! It is both weakening and depressing to the system, and, by opening the pores of the skin and by relaxing the bowels, is likely to give cold, and thus to make a healthy child a sickly one. Sweeten his blood! It is more likely to weaken his blood, and thus to make his blood impure! Blood is not made pure by drugs, but by Nature's medicine; by exercise, by pure air, by wholesome diet, by sleep in a well-ventilated apartment, by regular and thorough ablution. Sulphur a preventive medicine! Preventive medicine—and sulphur especially in the guise of a preventive medicine—is "a mockery, a delusion, and a snare."

376. *If a child be naturally delicate, what plan would you recommend to strengthen him?*

I should advise strict attention to the rules above

mentioned, and *change of air*—more especially, if it be possible, to the coast. Change of air, sometimes, upon a delicate child, acts like magic, and may restore him to health when all other means have failed. If a girl be delicate, "carry her off to the farm, there to undergo the discipline of new milk, brown bread, early hours, no lessons, and romps in the hay-field."—*Blackwood.* This advice is, of course, equally applicable for a delicate boy, as delicate boys and delicate girls ought to be treated alike. Unfortunately, in these very enlightened days, there is too great a distinction made in the respective management and treatment of boys and girls.

The best medicines for a delicate child will be Iron and Cod-liver Oil. Give them combined in the manner I shall advise when speaking of the treatment of rickets.

In diseases of long standing, and that resist the usual remedies, there is nothing like *change of air.* Hippocrates, the Father of Medicine, says :

"In longis morbis solum mutare."
(In tedious diseases to change the place of residence).

A child who is always catching cold in the winter, whose life during half of the year is one continual catarrh, who is in consequence likely, if he grow up at all, to grow up a confirmed invalid, ought to seek another clime during the winter months, and if the parents can afford the expense, they should, at the beginning of October, cause him to bend his steps to the south of Europe—Mentone being as good a place as they could probably fix upon. Before, however, deciding on this step, it would be as well to see if the child has adenoid vegetations (see Conversation 167).

Adenoid vegetations mean frequent colds, and they keep a child in a chronic state of debility and ill-health. Removal of these transforms the debilitated sickly child into a strong and healthy one.

For a delicate child who has nothing radically wrong

with him, often nothing succeeds like the Weir-Mitchell treatment. Removal from home for a period of two or three months, rest in bed, massage, a highly nutritious and strengthening diet, combined with a different environment, will give such a child just the fillip that is wanted to make him grow, to send the healthy life-blood coursing through his vessels, to give him good flesh and good bone, to make him relish his food, and provide him with a fresh start in physical life that will then brook no denial.

377. *Do you approve of bathing in the sea for a delicate young child?*

No; he is frequently so frightened by it that the alarm would do him more harm than the bathing would do him good. The better plan would be to have him every morning well sponged, especially his back and loins, with sea-water; and to have him as much as possible carried on the beach, in order that he may inhale the sea-breezes. When he be older, and is not frightened at being dipped, sea-bathing will be very beneficial to him. If bathing is to do good, either to an adult or to a child, it must be anticipated with pleasure, and not with dread or aversion.

378. *What is the best method for administering medicine to a child?*

If he be old enough, appeal to his reason; for, if a mother endeavor to deceive her child, and he detect her, he will for the future suspect her. If he be too young to be reasoned with, then, if he will not take his medicine, he must be compelled. Lay him across your knees, let both his hands and his nose be tightly held, and then, by means of the patent medicine-spoon, or, if that be not at hand, by either a tea or a dessertspoon, pour the medicine down his throat, and he will be obliged to swallow it.

It may be said that this is a cruel procedure; but it is the only way to compel an unruly child to take physic,

and is much less cruel than running the risk of his dying from the medicine not having been administered.*

379. *Ought a sick child to be roused from his sleep to give him physic, when it is time for him to take it?*

This is an important question that must be decided by the medical attendant. A mother cannot be too particular in administering the medicine, at stated periods, whilst he is awake.

380. *Have you any remarks to make on the management of a sick-room, and have you any directions to give on the nursing of a child?*

In sickness select a large and lofty room; if in the town, the back of the house will be preferable, in order to keep the patient free from noise and bustle, as a sick-chamber should be kept free from disturbance of that kind; but it should not be made miserable, and a darkened room and hushed voice are to be studiously avoided.

Brightness and life are meat and drink to a sick child. Choose then a room with a southerly or westerly aspect. Let the windows be large—they should reach to the ceiling nearly—so that the chamber may be flooded with light. Select a situation in the room that will place the cot out of reach of draughts and away from the glare of the light. Sunlight and plenty of it is the great purifier and life-giver: do not shut out the sun. The room must be made bright and cheerful, not dull and gloomy looking—pretty pictures, pretty flowers, *absolute cleanliness*.

* If any of my medical brethren should perchance read these Conversations, I respectfully and earnestly recommend them to take more pains in making medicines for children pleasant and palatable. I am convinced that, in the generality of instances, provided a little more care and thought were bestowed on the subject, it may be done; and what an amount of both trouble and annoyance it would save! It is really painful to witness the struggles and cries of a child when *nauseous* medicine is to be given; the passion and the excitement often do more harm than the medicine does good.

When a child is sick put him in his crib and do not fuss over him : *leave him alone.* You will only retard his recovery by fondling him, by dandling him on your knee ; you thus deprive him of a fresh, pure, wholesome air and perfect rest and quiet.

The crib must not have drapery or curtains—such appliances prevent a free circulation of the air. Choose a wire-woven mattress, place on this a hair mattress, next one thin blanket, sheets, a Witney blanket or two, and that is all. Heavy counterpanes are a mistake. The furniture of the room must be as simple as possible. No dust-traps of any sort, kind, or description can be tolerated for one moment. When dusting, do not flap about with a duster and dusting-brush. Such a practise only transfers dirt, which is contaminated with the poisonous exhalations from the child's lungs and body, from a place where it could be safely removed, to the general atmosphere of the room, where it is inhaled by and poisons the patient. Dust must be removed by a *damp* duster which is to be banished from the sick room as speedily as possible. The floor is not to be scrubbed. Sprinkle carbolized sawdust on the floor, then sweep it and remove the sweepings immediately.

The best way to ventilate is to shut the door, poke the fire and let down the top sash *night and day.* Remember that *fresh* air is not obtained by coaxing it from the stairs and passages. Fresh air is to be let in from the *outside* by the window. The half-used polluted air from below is not to be invited in by timidly putting the door slightly ajar. You cannot have too much fresh air ; that is half the battle ; but the air will not remain fresh long if it is to be polluted by the neglected state of the sick-chamber—by dust and dirt, by foul linen, by foul excreta poked away under the bed.

In fevers, free and thorough ventilation is of vital importance—then a patient cannot have too much air ; and the windows, be it winter or summer, must be well

opened, care being taken to exclude draughts. The fear of the patient catching cold by so doing is one of the numerous prejudices and baseless fears that haunt the nursery, and the sooner it is exploded the better it will be for human life.

The temperature of the sick-room should be maintained night and day not lower than 60° Fahr., whatever the nature of the illness, unless the doctor directs otherwise. As to whether there should be a fire in the grate or not, climatic conditions will determine the answer. Small fires encourage ventilation of the apartment, and thus carry off impure air. Bear in mind that a large fire in a sick-room cannot be too strongly condemned, if it is allowed to make the room so hot and stuffy that the patient literally gasps for air. I have been into many such rooms, where the atmosphere has been so stifling so ill-ventilated, and so prejudicial to health, that I have been made to feel quite ill and faint. If a temporary application has this effect on a healthy man, what must be the result of a prolonged exposure on a sick and suffering child! A thermometer is an indispensable requisite in a sick-room.

Be sure that there is a chimney in the room—as there ought to be in *every* room in the house—and that it is not stopped, as it will help to carry off the impure air of the apartment. Keep the chamber *well ventilated* by, from time to time, opening the window. The air of the apartment cannot be too pure; therefore, let the evacuations from the bowels be instantly removed to the water-closet. The water-closet should be provided with a plentiful supply of water, which is to be drawn from a tap placed there for rinsing purposes. Chamber utensils and bed-pans should be made of white glazed earthenware and provided with well-fitting lids. Glass urinals with wide necks are to be chosen—it is easy to keep them sweet and clean. Before using the bed-pan or the *pot-de-chambre*, let a little Carbolic Acid solution,

1 in 20, or Corrosive Sublimate solution, 1 in 1,000, or Izal, 1 in 20—to the depth of one or two inches or more —be put in the pan or *pot* in order to sweeten the motion, and to prevent any of it from adhering to the vessel. The glass urinal should be treated in the same manner. *Never use a slop pail.* Carry the utensil to the closet immediately it is finished with, empty it at once, well wash it, and leave it there until it is again wanted. If the case is an infectious one, the motions should be completely covered by and incorporated with the liquid disinfectant for half an hour before emptying them down the closet. If you detect anything that should not be with the motions or urine, save the specimen for the doctor's inspection. Keep the door of the closet shut and the window wide open—fresh air is very necessary. If the pan of the closet becomes stained, it must be scrubbed with strong Nitric Acid. Use plenty of *liquid* disinfectant.

Let there be frequent change of linen. In sickness it is even more necessary than in health, more especially if the complaint be fever. In an attack of fever, clean sheets ought, every other day, to be put on the bed; clean body-linen every day. A frequent change of linen in sickness is most refreshing. All soiled linen should immediately be removed from the sick-room. The moisture from the child's lungs and body has saturated the bedding with unwholesomeness, and keeping it in the room will poison the atmosphere. If the clothing has been removed from an infectious case, it must be treated as recommended under the heading Diphtheria (see Conversation 298).

If it can be arranged, the employment of two cots is advisable, one for the day and one for the night, and it is certainly desirable to change the child's night-gown and short jacket at the usual hour for bed-time.

The hospital draw-sheet is a very useful appliance, because it can be so easily moved without disturbing

the child. It should be one and a half yards long by three-quarters of a yard wide, and of somewhat coarser material than the linen sheet. This is easily slipped in under the child, and tucks away quite neatly. A mackintosh can be placed under it if necessary. Children, unlike adults, do not cover their shoulders and chest with the bed-clothes, therefore some provision must be made for the protection of these parts. They should wear over the night-gown a short flannel jacket, which will satisfy all requirements.

The question of bathing in sickness demands a few words. No matter what the illness may be, scrupulous personal cleanliness is most important, as important as clean clothing and clean bedding. The sick child should be washed *all over*, at least once, and better twice a day. When the child is washed the most careful attention should be paid to its skin. Anything you may observe that does not appear to be quite natural report to the doctor. The child must be carefully dried and a little dusting powder applied if necessary, but this is not to be a means of covering over the neglect of imperfect drying. A child can be rapidly washed, under a blanket if thought desirable, and dried without taking a chill. The doctor may order *sponging* to reduce the child's fever. If he does, it should be conducted as follows :— Place the child stripped on a flannel, with a mackintosh under, and sponge the body *all over* for five or ten minutes with tepid or cold water. When the operation is finished, rapidly dry the child, and place a hot-water bottle to the feet if they are cold. If a *cold pack* is ordered for the same purpose, wring a sheet out of cold water, envelop the patient from the neck to the feet, apply a blanket over all. This can be renewed in a quarter of an hour if the fever does not abate. At this stage I will address a few words to you about the nursing of Typhoid Fever. I have spoken to you about the necessity for frequent changes of bedding and clothing

and the importance of personal cleanliness. If great attention is not paid to these matters in typhoid fever, the nurse is very likely to contract the disease. Fecal matter on the sheets or on the patient's buttocks—disgusting evidences of careless nursing—will readily convey the disease, so be very careful. Every nurse or mother, whether she be bathing an eye, or mopping a throat, or administering an enema, or cleansing a child after an action of the bowels, or after any personal service, should be careful to cleanse her hands. The hands should be rinsed in one in sixty of Carbolic Acid solution and then scrubbed with Carbolic Soap and warm water, not forgetting the nails, which should be kept short. If there are many sores or scratches or abrasions of the skin of the fingers or about the nails, a finger-stall must be worn or the parts covered with Flexile Collodion. If wounds are dressed with sore fingers, or abraded fingers come in contact with "matter,"—the source from which the matter is derived is of no moment, whether from the ear, the eye, or a discharging wound, and so on,—then the finger will fester.

Next, you will require to know something about the administration of nourishment. Suppose the child is seriously ill, and is ordered by the doctor a pint and a half of milk and half a pint of beef-tea daily. Every hour it should be given food, two hours in succession two and a half ounces of milk, and every third hour two ounces of beef-tea. If the child will sleep from 10 P. M. to 6 A. M., allow it to do so; if it wakes at one or two in the morning, give it nourishment, and it will probably fall to sleep then. If, then, the child sleeps at night it need not be roused for food, unless the doctor gives special orders. A good night's rest is better than food, but should the powers flag in the early morning hours, then a feeding may be administered. If it is taking stimulant, such as brandy, this is to be administered with its milk. But suppose a child will not take its

food, perhaps cannot swallow ; what is to be done then ? If the child is wilful about its nourishment, then it must be fed through the nose, as it lies in its cot, by means of a glass syringe or a tablespoon with a special nozzle end. Each time it swallows a little more is injected or poured in, until finally the whole feeding is disposed of. If the child cannot swallow properly, and there is a danger of particles of food reaching the lungs and setting up inflammation there, then a tube will have to be passed into the stomach either by the nostrils or through the mouth. Such methods of administering nourishment, of course, require skilled assistance. On account of the serious condition of the throat, the doctor may order nutrient enemata.*

The food must not be kept in the sick-chamber. A convenient place should be found for the food on the landing outside or elsewhere, *where it can, be kept cool and free from contaminations of all kinds.* Milk readily absorbs disease germs—it is not to be kept near the lavatory. All feeding cups, spoons, forks, and so on, required for use in the sick-room, are to be thoroughly cleansed immediately after use, and put away in a suitable place until again required.

If hot fomentations or poultices are ordered, be careful to test them on the temple, or back of the hand, before applying them to the patient's delicate skin, otherwise you will burn it.

You must pay attention to the child's teeth, and keep them sweet and clean. If the teeth and gums become covered with black crusts and the tongue is very foul, these must be cleansed by rubbing them with equal parts of glycerine and lemon juice.

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* An enema apparatus is an important requisite in every nursery ; it may be procured of a respectable surgical instrument maker. The Indian-rubber Enema Bottle is, for a child's use, a great improvement on the old syringe, as it is not so likely to get out of order, and, moreover, is more easily used.

Some diseases require that the child should be fed lying down, all exertion being dangerous. As an illustration, I will mention cases of typhoid fever and diphtheria, with irregular action of the heart, and so on. Your doctor will tell you when danger is likely to arise from propping up the patient. You will then have to learn how to feed with a feeder in the recumbent position without causing the child exertion, and also provide for the reception of the excreta in the bed-pan without producing disturbance.

If you are nursing, or assisting in the nursing, wear a cotton dress with apron and over-sleeves. Change your apron and over-sleeves before taking your meals. Do not begin nursing on an empty stomach. If you have a reliable trained nurse attending on your child, do not interfere with her, and do not watch her as a cat would a mouse.

If you interfere with a well-trained nurse she will lose heart and interest in her case, and your child will suffer. Satisfy yourself that the nurse is doing her work well, and *leave her alone.* I have often seen this happen in private nursing : a fussy mother worries and addles the brain of a good nurse. When you have engaged a nurse, the nurse is responsible to *the doctor* for the efficient execution of his directions, and the doctor's watchful eye will soon find out if anything is as it should not be. If you are taking part duty yourself in the nursing, be very particular in carrying out the doctor's instructions to the letter. In selecting a sick nurse let her be truthful, trustworthy, punctual, quiet yet quick, cheerful, and hopeful, not easily discouraged, cleanly, gentle, and kind but firm withal. To be nurse-like is to be—

> "So kind, so duteous, diligent,
> So tender over his occasions, true,
> So feat."—*Shakspeare.*

Do not let there be in the sick-room more than one

efficient nurse at a time ; a greater number can be of no service—they will only be in each other's way.

In *head affections,* darken the room with a *green* calico blind ; keep the chamber more than usually quiet ; let what little talking is necessary be carried on in whispers, but the less of that the better ; and in *head affections,* never allow smelling-salts to be applied to the nose, as they only increase the flow of blood to the head, and consequently do harm.

It is often a good sign for a child, who is seriously ill, to suddenly become cross. It is then he begins to feel his weakness and to give vent to his feelings. "Children are almost always cross when recovering from an illness, however patient they may have been during its severest moments, and the phenomenon is not by any means confined to children."—*Geo. MacDonald.*

If a sick child be peevish, attract his attention either by a toy or by an ornament ; if he be cross, win him over to good humor by love, affection, and caresses, but let it be done gently and without noise. Do not let visitors see him ; they will only excite, distract, and irritate him, and help to consume the oxygen of the atmosphere, and thus rob the air of its exhilarating, health-giving qualities and purity ; a sick-room, therefore, is not a proper place either for visitors or for gossips.

Let stillness, if the head be the part affected, reign in a sick-room. Creaking shoes and rustling silk dresses ought not to be worn in sick-chambers—they are quite out of place there. If the child be asleep, or if he be dozing, perfect stillness must be enjoined, not even a whisper should be heard—

"In the sick-room be calm,
Move gently and with care,
Lest any jar or sudden noise,
Come sharply unaware.

You cannot tell the harm,
The mischief it may bring,

To wake the sick one suddenly,
Besides the suffering.

The broken sleep excites
Fresh pain, increased distress;
The quiet slumber undisturb'd
Soothes pain and restlessness.

Sleep is the gift of God;
Oh! bear these words at heart,
'He giveth his beloved sleep,'
And gently do thy part." *

If there be other children, let them be removed to a distant part of the house; or if the disease be of an infectious nature, let them be sent away from home altogether (for further information see Conversation 295).

In all illnesses—and bear in mind the following is most important advice—a child must be encouraged to try and make water, whether he ask or not, at least four times during the twenty-four hours; and at any other time, if he express the slightest inclination to do so. I have known a little fellow to hold his water, to his great detriment, for twelve hours, because either the mother had in her trouble forgotten to inquire, or the child himself was either too ill or too indolent to make the attempt. Special details regarding the nursing of infectious cases have been described under their respective headings, and full information will be found under the heading Diphtheria (see Conversation 298).

See that the medical man's directions are, to the very letter, carried out. Do not fancy that you know better than he does, otherwise you have no business to employ him. Let him, then, have your implicit confidence and your exact obedience. What *you* may consider to be a trifling matter, may frequently be of the utmost importance, and may sometimes decide whether the case shall end either in life or death.

Household Verses on Health and Happiness. London: Jarrold & Sons. A most delightful little volume.

381. *Will you give me some directions about the treatment of vermin in the head?*

It is not very poetical, as many of the grim facts of everyday life are not, but unlike a great deal of poetry, it is unfortunately too true that, after a severe and dangerous illness, especially after a bad attack of fever, a child's head frequently becomes infested with vermin—with lice! It therefore behooves a mother herself to thoroughly examine, by means of a fine-tooth comb, her child's head, in order to satisfy her mind that there are no vermin there. As soon as he is well enough, he ought to resume his regular ablutions—that is to say, that he must go again regularly *into* his tub, and have his head every morning thoroughly washed with soap and water. A mother ought to be particular in seeing that the nurse washes the hair-brush at least once every week; if she does not do so, the dirty brush which has during the illness been used might contain the "nits"—the eggs of the lice—and would thus propagate the vermin, as they will, when on the head of the child, soon hatch. If there be already lice on the head, in addition to the regular washing every morning with the soap and water, and after the head has been thoroughly dried, let the hair be well and plentifully dressed with Ammoniated Mercury Ointment, one ounce, Vaseline, two ounces, which are to be well mixed together. This will quickly cure the disease, and also sores in the head, if any happen to be there. If a child has "breakings-out" in the head he probably has vermin. Look for these and the "nits." Sores at the back of the head and nape of the neck almost certainly mean vermin. He may suffer from a *stiff-neck*. The glands at the back of the neck enlarge and become painful from the "irritation" in the scalp. As movement causes pain, the head is held stiffly. If the disease is neglected abscesses on the head and neck will arise.

The "nit"—the egg of the louse—may be distin-

guished from dandruff, although to the *naked* eye it is very much like it in appearance, by the former fastening firmly on one of the hairs as a barnacle would on a rock, and by it not being readily brushed off as dandruff would, which is always loose. If the head is not sore, remove the "nits" by washing the hair with Spirits of Wine. This loosens the cement which binds the "nits" to the hair.

382. *My child, in the summer-time is much tormented with fleas: what are the best remedies?*

A small muslin bag, filled with Camphor, placed in the cot or bed, will drive fleas away. Each flea-bite should from time to time be dressed, by means of a camel's hair-brush, with a drop or two of Spirit of Camphor, an ounce bottle of which ought, for the purpose, to be procured from a chemist. Camphor is also an excellent remedy to prevent bugs from biting. Bugs and fleas have a horror of Camphor; and well they might, for it is death to them!

There is a famous remedy for the destruction of fleas manufactured in France, entitled "*La Poudre Insecticide*," which, although perfectly harmless to the human economy, is utterly destructive to fleas. Bugs are best destroyed by Creosote or by Oil of Turpentine, or Insect Powder. The places they love to congregate in should be well saturated, by means of a brush, with the Creosote or with the Oil of Turpentine. A few dressings will effectually destroy both them and their young ones.

383. *Is not the pulse a great sign either of health or of disease?*

It is, and every mother should have a general idea of what the pulse of children of different ages should be, both in health and in disease. "Every person should know how to ascertain the state of the pulse in health; then by comparing it with what it is when he is ailing, he may have some idea of the urgency of his case.

Parents should know the healthy pulse of each child, since now and then a person is born with a peculiarly slow or fast pulse, and the very case in hand may be of such peculiarity. An infant's pulse is 140 ; a child of seven about 80 ; and from 20 to 60 years it is 70 beats a minute, declining to 60 at fourscore. A healthful grown person beats 70 times in a minute, declining to 60 at fourscore. At 60, if the pulse always exceeds 70, there is a disease—the machine working itself out ; there is a fever or inflammation somewhere, and the body is feeding on itself, as in consumption, when the pulse is quick." In a young infant the act of sucking, muscular movements, and crying, increase the rapidity of the pulse. The rapidity of the pulse is decreased during sleep. Fever accelerates the pulse. Brain diseases often slow it.

384. *Suppose a child to have had an attack either of Inflammation of the Lungs or of Bronchitis, and to be much predisposed to a return, what precautions would you take to prevent either the one or the other for the future?*

I would recommend him to wear fine flannel instead of lawn shirts ; to wear good lamb's-wool stockings *above the knees,* and good, strong, dry shoes to his feet ; to live, weather permitting, a great part of every day in the open air ; to strengthen his system by good nourishing food—by an abundance of both milk and meat, the former especially ; to send him, in the autumn, for a couple of months, to the seaside ; to administer to him, from time to time, Cod-liver Oil ; in short, to think only of his health, and to let learning, until he be stronger, be left alone. I also advise table salt, or sea salt, to be added to the water in which the child is washed with in the morning, in a similar manner as recommended in answer to a previous Question.

385. *Then do you not advise such a child to be confined within doors?*

If any inflammation be present, or if he have but just recovered from one, it would be improper to send him into the open air, but not otherwise, as the fresh air would be a likely means of strengthening the lungs, and thereby of preventing an attack of inflammation for the future. Besides, the more the child is coddled within doors, the more likely will he be to catch cold, and to renew the inflammation. If the weather be cold, yet neither wet nor damp, he ought to be sent out, but let him be well clothed. The nurse should have strict injunctions *not* to stand about entries or in any draughts —indeed, not to stand about at all, but to keep walking about all the time she is in the open air. Unless you have a trustworthy nurse, it will be well for you either to accompany her in her walk with your child, or merely to allow her to walk with him in the garden, as you can then keep your eye upon both of them.

386. *If a child be either pigeon-breasted or narrow-chested, are there any means of expanding and of strengthening his chest?*

If a young child, from eighteen months to four years of age, be pigeon-breasted, that is because he is suffering from Rickets (see Conversation 404). During the time he is rickety no special treatment can be adopted to regulate the deformity; attention must be paid to the complaint which is causing this. Such a deformity invites attacks of bronchitis and inflammation of the lungs in rickety children, and the weakened muscles are placed at a great disadvantage in carrying on the breathing, often with a disastrous result. If the rickets has passed away, leaving the deformity, then attention must be paid to his health alone, or consumption will probably mark him for its own! Let him live as much as possible in the open air; if it be country, so much the better. Let him rise early in the morning, and let him go to bed betimes; and if he be old enough to be taught overhead exercises with the dumb-bells, he should do so daily.

He ought also to be encouraged to use two short sticks, similar to, but heavier than, a policeman's staff, and to go, every morning, through regular exercises with them. As soon as he is old enough, let him have lessons from a drill-sergeant and from a dancing-master. All exercises that improve the "wind," such as running, paper-chases, and football, will expand the lungs, and so the chest. Let him be made both to walk and to sit upright, and let him be kept as much as possible upon a milk diet,* and give him as much as he can eat of fresh meat every day. Cod-liver oil, a teaspoonful or a dessert-spoonful, according to his age, twice a day, is serviceable in these cases. Stimulants ought to be carefully avoided. In short, let every means be used to nourish, to strengthen and invigorate the system. Such a child should be a child of Nature; he ought almost to live in the open air. He should devote some portion of the day to his lessons, but these must not be allowed to take a prominent position in his daily life. Of what use is learning without health? In such a case as this you cannot have both.

387. *If a child suffers from Lateral Bending of the Spine, and if either of his shoulder-blades have "grown out," what had better be done?*

The treatment will depend upon the cause. If it occurs in a young child, from eighteen months to four years of age, he will be found to be rickety, and the treatment is that of rickets (see Conversation 405). Prevent the child assuming faulty positions. He must not be allowed to sit up for long periods. He should be straightened out either on his back, or side, or face, and the various positions recommended should be changed from time to time. Daily shampooing of the spine is a useful auxiliary. Lateral bending of the spine may

* Where milk does not agree, it may generally be made to do so by the addition of one part of lime-water to seven parts of new milk.

be due to a shortening of a leg from the birth or from subsequent disease. Sometimes a congenital affection of the spine is the cause. It may be the result of a diseased state of one of the lungs—there are several varieties of disease—or possibly of a bygone inflammation of the "bag" of the lung with formation of "matter."

The decision must rest with your doctor. The variety I am now about to describe usually occurs in children at puberty.

Many children have their shoulder-blades grown out, and have their spines twisted, from growing too fast, from being allowed to slouch in their gait, and from not having sufficient nourishing food, such as meat and milk, to support them while the rapid growth of childhood is going on.

If your child be affected as above described, nourish him well on milk and on farinaceous food, and on meat, but let milk be his staple diet; he ought, during the twenty-four hours, to take two or three pints of new milk. He should almost live in the open air, and must have plenty of play. If you can so contrive it, let him live in the country. When tired, let him lie for half an hour, two or three times daily, flat on his back, on a firm back-board. Let him rest at night on a horse-hair mattress, and not on a feather bed.

Let him have every morning, if it be summer, a thorough cold water ablution; if it be winter, let the water be made tepid. Let either two handfuls of table salt or a handful of sea salt be dissolved in the water. Let the salt and water stream well over his shoulders and down his back and loins. Let him be well dried with a moderately coarse towel, and then let his back be well rubbed,

Let him do his lessons lying on a firm back-board.

Let him have, twice daily, a teaspoonful or a dessert-spoonful (according to his age) of cod-liver oil, giving it him on a full and not on an empty stomach.

Let the drill-sergeant give him regular lessons, and let the dancing-master be put in requisition. Let him go through regular gymnastic exercises, provided they are not of a violent character. The object of the treatment is to gently work the muscles so that they may grow and become strong, and not to *fatigue them*. Exercise must be followed by rest. At once check any tendency you may observe to the assumption of a faulty position. The muscles which are used to counteract this must be worked by suitable movements, which will straighten out the contracted parts.

But, bear in mind, let there be in these cases no mechanical restraints—no abominable stays and irons. Make him straight by natural means—by making him strong. If this cannot be so effected, consult your medical attendant. Mechanical means would only, by weakening and wasting the muscles from disuse, increase the mischief, and thus the deformity. In this world of ours there is too much reliance placed on artificial, and too little on natural means of cure. If the exercises increase the pain, and if the child seems to be *very cautious* in its movements and the back is held stiffly, you had better consult a doctor, as it is then possible there is "consumption of the spine" (spinal caries) lurking in the background.

388. *If my child stoops, has round shoulders, and the shoulder-blades project, what am I to do?*

It is a painful sight to see a child stoop like an old man! In such a case he may discard braces and wear an elastic shoulder strap. Skipping is of great use, whether the child be either a boy or a girl, using, of course, the rope backwards and not forwards. The same treatment that has been recommended for a lateral bending of the spine (see Conversation 387) should be adopted in this case. The disease might prove to be "consumption of the spine" (spinal caries), and then this treatment would be harmful, so you had better be on the safe side

and consult a doctor. If there is much pain and the spine is held stiffly, it is certainly spinal disease.

389. *What are the causes of Bow Legs in a child?*

Rickets is responsible for Bow Legs. Bow legs are mostly due to the attitude adopted in sitting by a rickety child (see Conversation 404), coupled with the weight of the body on the limbs when it is in the upright position. The bones are soft, and readily bent.

390. *What is the treatment?*

The treatment is that of rickets. The bones are soft up to the age of four years. Splints must be applied to prevent an increase of the deformity. If the deformity is moderate, the bones will straighten themselves under these conditions by process of growth. In severe cases, and in those in which the deformity persists, an operation will be necessary. Operative treatment, when found advisable, is very successful.

391. *What are the causes of Knock Knee?*

Knock Knee is nearly always due to rickets.

392. *What is the treatment?*

The treatment is that of rickets (see Conversation 405), and the same remarks apply to this condition as have just been made under the heading Bow Legs (see Conversation 389).

393. *If a child, while asleep, "wet his bed," is there any method of preventing him from doing so?*

Let him be held out just before he goes to bed, and again when the family retires to rest. If, at the time, he be asleep, he will become so accustomed to it, that he will without awakening, make water. He ought to be made to lie on his side; for, if he be put on his back, the urine will rest upon an irritable part of the bladder, and, if he be inclined to wet his bed, he will not be able to avoid doing so. He must not be allowed to drink much with his meals, especially with his supper. Wetting the bed is an infirmity with some children—they cannot help it. It is, therefore, cruel to scold and

chastise them for it. Occasionally, however, wetting the bed arises from idleness; in which case, a little wholesome correction will be necessary.

Waterproof bed-sheeting—one yard by three-quarters of a yard—will effectually preserve the bed from being soiled, and ought always, under these circumstances, to be used.

A mother ought, every morning, to ascertain for herself whether a child has wet his bed; if he has, and if, unfortunately, the waterproof cloth has not been used, the mattress, sheets, and blankets must be instantly taken to the kitchen fire and be properly dried. Inattention to the above has frequently caused a child to suffer from cold; not only so, but, if they be not dried, he is wallowing in filth and in an offensive effluvium. If both mother and nurse were more attentive to their duties—in frequently holding a child out, whether he ask or not—a child wetting his bed would be the exception, and not, as it frequently is, the rule. The child should sleep in a well-ventilated room on a horse hair-mattress, and must not be too warmly covered with bedclothes. If these measures prove unsuccessful you had better consult a doctor. Irritation from constipation and from thread-worms will cause the accident. Sometimes it is due to an over-acid state of the urine or to some article of food. Reduce the quantity of his meat and do not give him rhubarb. The bladder may be inflamed, there may be a stone in it, or possibly some kidney trouble. It may be owing to an undue length of the skin at the end of the penis, or "sticking together" of the parts there, or perhaps to a narrow "urinary orifice." Highly nervous, delicate children are often sufferers, and with these sleep is frequently very deep and profound. If your child has enlarged tonsils and adenoid vegetations (see Conversations 165, 166, and 167), these had better be removed. When the blood is aërated better, as it will then be, the complaint will probably disap-

pear. I have, however, told you quite enough to show you that in some cases it is very necessary to seek advice. The administration of drugs, when all sources of irritation have been removed, is usually very successful. The drugs that are beneficial are powerful, and can only be administered under a doctor's instructions.

394. *Can you tell me of any plan to prevent Chilblains?*

In the winter time, let a child who is subject to them, wear a square piece of wash-leather over the toes, a pair of warm lamb's-wool stockings, and good shoes; but, above all, let him be encouraged to run about the house as much as possible, especially before going to bed, and on no account allow him either to warm his feet before the fire, or to bathe them in *hot* water. Rubbing in Soap Liniment or compound Camphor Liniment every night is a good preventive. If the feet be cold, and the child be too young to take exercise then let them be well rubbed with the warm hand. If adults suffer from chilblains, I have found friction, night and morning, with horse-hair flesh-gloves, the best means of preventing them.

395. *How can Chilblains be cured?*

If they be unbroken, great relief is experienced by painting the chilblain with Tincture of Iodine, or rubbing in the liniments named above.

If they be broken, let a piece of lint be spread with a mixture of equal parts of Zinc Ointment and Red Oxide of Mercury Ointment, and be applied, every night and morning, to the part.

396. *During the winter time my child's hands, legs, etc., chap very much: what ought I to do?*

Let a teacupful of bran be tied up in a muslin bag, and be put, over night, into either a large water-can or jug of *rain*-water; * and let this water, from the can or

* *Rain*-water ought *always* to be used in the washing of a

jug, be the water he is to be washed with on the following morning, and every morning until the chaps be cured. As often as water is withdrawn, either from the water-can or from the jug, let fresh rain-water take its place, in order that the bran may be constantly soaking in it. The bran in the bag should be renewed about twice a week.

Take particular care to dry the skin well every time he is washed; *never use a damp towel.* An excellent remedy is Glycerine, which should be smeared, by means of the finger or by a camel's hair brush, on the parts affected, two or three times a day. If the child be very young, or the skin very irritable, it will be necessary to dilute the Glycerine with Rose-water. Fill a small bottle with one-third of Glycerine, and the remaining two-thirds of the bottle with Rose-water; shake the bottle every time just before using it. The child should wear gloves to protect the hands from the atmosphere. If diluted Glycerine is not successful try Boracic Acid Ointment. The best soap to use for chapped hands is the Glycerine Soap, no other being required.

397. *What are the remedies for Chapped Lips?*

Cold-cream, which may be procured of any respectable chemist, or Vaseline, or Boracic Ointment; all excellent applications for *chapped lips.* By means of the finger, let the application be frequently smeared on the parts affected.

398. *Have the goodness to inform me of the different varieties of Worms that infest a child's bowels.*

Principally three— (1) the tape-worm; (2) the long round-worm; and (3) the most frequent of all, the common thread-worm. The tape-worm infests the whole course of the bowels, both small and large: the long round-worm, principally the small bowels, occasionally

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child; pump water is likely to chap the skin, and to make it both rough and irritable.

the stomach ; it sometimes crawls out of the child's mouth, causing alarm to the mother, though there is, of course, no danger in its doing so. The common thread-worm infests the large bowel and the rectum or fundament.

399. *What are the causes of Worms?*

The causes of Worms are : a disordered condition of the bowels ; bad and improper food ; underdone beef or pork ;* an excess of sweets ; contaminated drinking water.

400. *What are the symptoms of Worms?*

Thread-worms cause irritation of the fundament, and in girls of the front passage, also sometimes accompanied by a discharge which may be blood-stained.

Round-worms are unassociated with *special* symptoms. The first indication of the trouble is the passage of the worm by the bowel. They may be associated with dyspepsia (abdominal pains, diarrhea and sickness), but there is nothing in the nature of such attacks to arouse suspicion. In a doubtful case, if the eggs were found in the fæces by a microscopical examination, this would turn doubt into certainty. Dr. Wainwright says that at Brixworth, in Northamptonshire, the poor people there suffer from a disease which they call "Worm Fever." The child becomes sick and ill, and dead worms are expelled by the bowel. This "Worm Fever" he found to be diphtheria. The poison in the blood of diphtheria patients evidently acts as a poison to these worms.

Tapeworms.—A tapeworm may give rise to no symp-

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* One frequent cause of tapeworm is the eating of pork, more especially if it be underdone. *Underdone* pork is the most unwholesome food that can be eaten. *Underdone* beef also gives tapeworm, and is the most frequent cause of tapeworm known ; let the meat, therefore, be well and property cooked. These facts ought to be borne in mind, as prevention is always better than cure.

toms whatever, and the mother is unaware that the child is out of health until she finds the flat joints of the worm in the chamber vessel or closet pan. There may be loss of flesh, indigestion, pain in the abdomen or pit of the stomach, but there is nothing characteristic about these symptoms, nor is there in an "uncomfortable feeling about the belly." The movements of the worm may be felt!

Thread-worms are like short pieces of white cotton, half an inch and less in length. They may be matted together with "jelly" from the bowels into little balls. Round-worms are not unlike the common garden-worm. They vary from ten to fifteen inches in length or less, are of a reddish-brown color, when alive, and have a disagreeable smell. They occur singly or in twos and threes, and rarely in great numbers. Tapeworms are jointed; the smallest part is the head, the largest the end of the worm, and growth takes place from the head backwards. The pork tapeworm, is from seven to ten feet long, its head the size of a pin's head, and the mature joints half an inch long by a quarter of an inch broad. The beef tapeworm is about twelve feet long. It has a trifle larger head, and its mature joints are three-quarters of an inch long by a quarter of an inch broad. The life of these creatures lies in the head. If the head does not come away, the worm will be fully developed again in about ten weeks' time. If, when the doctor has expelled the worm, the head be not found upon it, it will be necessary to carefully wash the motion in a hair sieve to see if it be there.

If you discover thread-worms when the bowels have been well opened, inject a pint of warm salt and water into the lower bowel. Pass the enema tube of a fountain syringe *well into* (the length of the forefinger) the fundament, having previously oiled it. The child should lie on his back with his buttocks raised. Do not frighten him. After the injection he should lie

quietly for an hour. Infusion of Quassia can be used instead of salt and water—it should be warmed. Injections should be used every other day for a fortnight. Before using them the bowels should be opened by an enema of warm water and soap to the amount of half a pint. Smear the back passage with Ammoniated Mercury Ointment and Vaseline, equal parts, night and morning, just passing the greasy finger into the orifice of the bowel. After an action of the bowels the parts should be washed and then the ointment applied. The orifice of the front passage should be treated in the same way. If there be a discharge from it your doctor will quickly cure this.

401. *What is the treatment of Worms?*

With regard to *treatment*, a medical man ought to be consulted. He will soon use means both to dislodge them, and prevent a future recurrence of them.

Let me caution a mother never to give her child patent medicines for the destruction of worms. No, if your child have worms, put him under the care of a judicious medical man, who will soon expel them, without, at the same time, injuring health or constitution!

402. *How may Worms be prevented from infesting a child's bowels?*

Thread-worms generally infest *weak* bowels; hence, the moment a child becomes strong, worms cease to exist. The reason why a child is so subject to them is owing to the improper food which is usually given to him. When he be stuffed with unsound and with unripe fruits, with much sweets, with rich puddings, and with pastry, and when he is oftentimes allowed to *bolt* his food without chewing it, is there any wonder that he should suffer from worms? The way to prevent them is to avoid such things. If thread-worms be present keep the child's hands scrupulously clean, and do not allow him to scratch his fundament. He is likely to do this at night in his sleep, unconsciously, therefore

tie his hands up in bags. The eggs can be conveyed from there to the mouth and infection thus kept up. If he is suffering from dyspepsia, be very careful about his diet. Tapeworms are readily avoided if the meat be well cooked—thorough cooking means death to them.

403. *What are the causes of Rickets?*

Improper artificial feeding; carelessness on the part of the mother regarding her health during nursing; improper nursing and a too prolonged nursing; chronic indigestion; unhealthy parents; constitutional disease; want of wholesome air and sunlight; lowering of the vitality following an attack of severe illness.

404. *Have you any remarks to make on Rickets?*

Rickets produces softness of the bones, from deficiency of lime salts, together with enlargement of their ends, weakness of the muscles and ligaments, and an irritable condition of the brain. The child perspires about the forehead and head, will not lie under the bedclothes, and his body and limbs are tender. In some cases he may be a little feverish. The earliest changes are little knobs or beads in front of the chest, at the junctions of the ribs with the gristle (cartilage), and spots of softening in the bones of the skull. When the beads on the ribs are very prominent this feature his been called a "rickety rosary." Enlargement of the ends of the bones will appear to you as a thickening of the joint—the wrist joint will probably attract your attention the most. The teeth are late in appearing, the child is unable to walk when it should, and there may be not even a desire to crawl. Sometimes the alterations in the ends of the bones are not very obvious, and the chest bears the brunt of the battle. If the disease advances, the child becomes pigeon-breasted and "pot-bellied." The outline of the chest is like that of a peg-top, and in severe cases approaches a figure of 8 shape. The upper half is small, the lower

bulged out. Sometimes the upper half is so small that it could be made to fit easily inside the head. In marked cases the head is large and square, the face small and thin. The "opening of the head" at the top remains widely open—it should close at twelve months of age. Perhaps he has a "lateral bending" of the spine, or the spine arches backwards. He is a martyr to indigestion in one form or another, usually diarrhea. He readily catches cold, seems never to be free from bronchitis, and is very liable to a severe and often fatal form of inflammation of the lungs. He is attacked by convulsions or "child-crowing," or tetany (see Conversation 123). The bony cavity in the lower part of the abdomen (the pelvis) becomes narrowed. In female children this is a very disastrous deformity, because it may lead to difficult child-birth in after life. The legs bow. He is frequently very pale and delicate-looking. If the disease has not proved sufficiently severe to prevent him walking he probably has "knocked knees," or "bowed legs" (see Conversations 389 to 392), or "weak ankles." In severe cases the growth is likely to be stunted. If the disease is not marked he is probably fat and heavy, aud the swelling of the bone ends is not so very obvious, but the bones are soft, and various deformities will be produced from putting him on his legs too early. The disease may, rarely, be present at birth, perhaps just in evidence at six months of age, but from nine months to three years it is much more prevalent, and may be met with for two or three years beyond that time. Be careful when handling him—if the disease is severe the bones readily break.

405. *How may a child be prevented from becoming rickety? or, if he be rickety, how ought he to be treated?*

Prevent him becoming rickety by carefully avoiding all the causes mentioned under Conversation No. 403. Pay the greatest attention to his diet and feed him properly.

When will mothers arouse from their slumbers, rub their eyes, and see clearly the importance of the subject? When will they know that all the symptoms of rickets I have just enumerated *usually* proceed from the want of suitable food? There are, of course, other means of warding off rickets besides an abundance of nourishing food, such as thorough ablution, plenty of air, exercise, play, and sunshine; but of all these splendid remedies, nourishment stands at the top of the list.

Let him have a good supply of fresh, pure, dry air. He must almost live in the open air—the country, if practicable, in preference to the town, and the coast in summer and autumn. Sea-bathing and sea-breezes are often, in these cases, of inestimable value.

He ought not, at an early age, to be allowed to bear his weight upon his legs. He must sleep on a horse-hair mattress, and not on a feather bed. He should use, every morning, cold baths in the summer, and tepid baths in the winter, with a handful of bay salt dissolved in the water.

Friction with the hand must, for half an hour at a time, every night and morning, be sedulously applied to the back and to the limbs. It is wonderful how much good in these cases friction does.

Strict attention ought to be paid to the rules of health as laid down in these Conversations. Whatever is conductive to the general health is preventive and curative of rickets.

The best medicines in these cases are a combination of Cod-liver Oil and Iron given in the following manner:—Put a teaspoonful of iron wine into a wine-glass, half fill the glass with water, sweeten it with a lump or two of sugar, then let a teaspoonful of cod-liver oil swim on the top; let the child drink it all down together, twice or three times a day. An hour after a meal is the *best* time to give the medicine, as both iron

and cod-liver oil sit better on a *full* than on an *empty* stomach. The child in a short time will become fond of the above medicine, and will be sorry when it is discontinued.

The ailments just enumerated which are associated with rickets require appropriate treatment, and you will act wisely if you seek the advice and assistance of a doctor.

A case of rickets requires great patience and steady perseverance; let, therefore, the above plan have a fair and long-continued trial, and I can then promise that there will be every probability that great benefit will be derived from it.

406. *What is Scurvy Rickets?*

Sometimes in rickety infants there is "internal bleeding" underneath the membrane which covers the bones. The bones of the legs are perhaps more often attacked than those of other parts of the body, but any bone may suffer. If the legs are involved they appear to be paralyzed—he has but little power in them. The fronts of the shins are swollen and shiny-looking, and the feet are swollen as well. The complaint causes great suffering. *He shrieks most piteously if any one approaches or touches them.* Sometimes the affected bones break. You will perhaps see blue bruises on the gums round the teeth or over a tooth which is just appearing. Bruises may come on the skin, or possibly one or both eyes become "black." There may be blood in the urine or in the motions, or these may look like tar. The child requires very special treatment, *so you must call in a doctor at once.*

407. *If a child be subject to a scabby eruption about the mouth, what is the best local application?*

If he has a frequent discharge from the nose, and the upper lip is sore and scabby, have the nose examined. He probably has adenoid vegetations (see Conversation 167).

If he has "breakings-out" or matter elsewhere, he is doubtless inoculating himself. See that he does not do this. Remove the scabs by bathing them with warm oil—and then apply to the sores Ammoniated Mercury Ointment, one part; Vaseline, two parts. Treat the source from which he derives the matter. Perhaps he is subject to sore throat, or ulcers in the mouth, or febrile attacks? If so, he will require treatment.

408. *What are the symptoms of Milk-crust or Running Scall?*

Milk-crust or Eczema attacks infants at the breast, and young children; after the sixth year it is uncommon. It is a nasty-looking complaint, and frequently gives a mother a great deal of trouble, anxiety, and annoyance. The forehead, the cheeks, the scalp, the skin behind the ears, and the soft skin of the flexures of the joints (groins, knees, elbows, etc.,) are the parts most frequently attacked. The skin is hot and reddened; multitudes of tiny pimples are seen on this, these become "watery" and burst, leaving a weeping surface. Next are seen scabs, and weeping or raw surfaces. Sometimes matter forms instead of clear fluid, then the scabs are of a dirty greenish-yellow color.

It is sometimes so large, on the head, as actually to form a skull-cap; and so extensive, on the face, as to form a mask! These, I am happy to say, are rare cases. The child's beauty, of course, is for a time completely destroyed, and not only his beauty, but his good temper; for as the eruption causes great irritation and itching, he is constantly scratching himself and crying from its annoyance, the greater part of the day, and sometimes also of the night—the eruption preventing him from sleeping. His hands should be tied up in bags or fastened by splints to prevent scratching. Scratching increases the disease tenfold, and if matter forms he is certain to inoculate himself elsewhere, perhaps carry it to his eyes. Soap must not be used. The affected

parts are to be cleaned with thin oatmeal gruel when necessary, and then generally wiped dry, *not rubbed.*

409. *What is its duration?*

As milk-crust is a tedious affair, and will require a variety of treatment, it will be necessary to consult an experienced medical man; and although he will be able to afford great relief, you must not become disheartened if the child suffers occasional relapses. With both judicious and careful treatment, it will gradually disappear, and eventually leave not a trace behind.

410. *What are the "Shingles?"*

It is an eruption consisting of clusters of round vesicles on irregular and inflamed patches of the skin. The clusters may be arranged in a band running half round the body, but the band is not complete, the course of the clusters being somewhat interrupted. The eruption maps out the course of a cutaneous nerve, the nervous system being at the root of the disorder. As one cluster forms another makes its appearance till all the eruption is "out." The first formation is that nearest to the spine. Pliny said, "Enecat si cinxerit" —"It kills if it encircles." It is popularly supposed to do so now, but twice in children I have seen both sides of the body attacked followed by perfect recovery. There are no grounds for the superstition, but the occurrence is a very rare one. The face, the neck, the shoulders and upper arms, the buttocks and the thighs may be the parts attacked and not the trunk. The affection disappears in a few days as a rule, but there may be troublesome sores, followed by scars, and then the duration is longer. There is usually no pain, and frequently only a little discomfort. In adults the affection is a painful one.

411. *What is the treatment of Shingles?*

The affected part should be smeared with Zinc Ointment, and covered with a soft rag. Over all place a pad of cotton wool and secure it by a flannel bandage.

412. *What is Ring-worm?*

It is a highly contagious disease attacking the head and sometimes the body. It is caused by the presence of several varieties of parasitic fungi.

413. *What is the cause of Ring-worm?*

It generally occurs in weakly children, and is produced by contagion. It is caught from child to child; the using of towels or hair-brush, or cap or clothes the property of an infected child; from the cat; from the horse; from the dog. I remember a little handsome boy being infected by the cat. He gave it to his nurse, and to a visitor. In another case, some eight children caught it simultaneously. It was discovered that on the dinner bell being rung, they used to scamper in to make themselves tidy. A bag with hair-brushes hung behind the door. As each child brushed his hair, the favorite dog was also brushed. The dog was abundantly infected with the fungus. Ringworm of the horse is generally noticed about the mane, that of the dog on the back, that of the cat about the face. I caution you to look well after your household pets.

414. *What are the symptoms of Ringworm?*

On examining the head of a child, there are seen small oval patches of scurf, with the hairs, in the patch, as if they had been bitten off. The patches spread to the size of a quarter piece or more. In ringworm of the body, you notice a slightly scurfy patch, oval or round in shape, the center is pale, the margin raised and reddened. The hair, if examined under the microscope, is found to be choked with parasitic fungus.

415. *What is the treatment of Ringworm?*

A volume might be written on the subject, and then not give you a specific or really always infallible cure. My own experience is that it occurs more frequently in the very weakly, but many robust children are attacked. The first thing to be done is to have *all* the hair shaved off the head, leaving a little fringe in front and back

for appearance' sake. This is imperative, in my opinion, if a speedy cure is to be effected. Next well wash the scalp with soft soap and water to remove the scales, and then daily with soap and hot water. Now you may rub into all the patches the ointment given in Prescription XVII.* in Appendix.

Cover the head with a soft cap and an oil-silk cap over that to prevent damaging any garment with the ointment.

The head must be kept close shaven until the patches have disappeared. The shaving may be required many times.

In ring-worm of the body you may use the same ointment, well rubbing it into the parts for ten minutes, night and morning, after a warm bath.

Ring-worm of the body is readily cured—it will probably be well in a week. Ring-worm of the scalp is frequently a very tedious affair, and often takes months to get well, perhaps longer. The difficulty does not lie so much in finding *the* remedy, but in introducing the parasiticide to the affected part. In ring-worm of the body this is easily done, the disease being quite superficial. In ring-worm of the head this is difficult. The roots of the hair are deeply placed in the skin, and the fungus lies within them, being reached with difficulty. *As long as there is any appearance of scurf in the scalp, the child is not cured.* If a child suffers from a scurfy head, he may have ring-worm, so you had better have him examined by a doctor to see if that be the case, Sometimes the disease occasions a great deal of irritation in the scalp. "Breakings-out" will then be found on the head, which might lead to the disease being overlooked. Removal of the diseased hairs with forceps is beneficial in some instances. There are several power-

* Do not let the ointment come on your rings. Mercury turns the gold to a white color, and will destroy them.

ful remedies which can be used with great advantage and benefit, but they are only permissible under the supervision of a medical man.

It is essential that all the linings to hats, caps, etc., be taken out and destroyed; that these hats, etc., be well examined and cleaned; and that new linings should then be put in. Remember you are trying to stamp out a very contagious affection, and one that is most easily propagated.

It would be well, if possible, to keep the uninfected children apart. If not, extra supervision is demanded of the attendant in charge to prevent head-rubbing or kissing. The infected must not attend school.

416. *What is the Itch?*

It is a contagious disease, due to the presence of an insect which burrows under the skin.

417. *What are the symptoms?*

The disease may be found on any part of the body. The most common situations are the buttocks, the soles of the feet, the genitals, and the body. The fingers, the wrists, and the arms frequently escape—this does not often happen in adults. The face may be attacked—this also is not the case in adults. Children scratch themselves freely, and scratch marks may be seen on them. When scratching, they inoculate various part of the body with matter. The disease may readily be mistaken for eczema, or nettle-rash, or red-gum. "Breakings-out" may arise in the shape of blebs, pustules, crusts, and scabs. On looking at a typical case affecting the hands, a small pimple or vesicle is noticed, and from this vesicle, a minute raised black, wavy line. The female insect has got under the skin, and, by so doing, irritated it, so that a vesicle is formed. It then burrows from the vesicle—the directions being marked by the minute black, wavy, raised lines. At the end of this line may be seen a little opaque speck—this is the insect, which may be extracted by a needle. The irrita-

tion caused by the insect is very great, and is increased as soon as the body becomes warm in bed.

The disease is propagated by dirty people, and caught by those who have omitted to wash their hands after touching dirt or dirty things. It is most prevalent amongst the natives of India.

418. *What is the treatment?*

Give the child a hot bath, and well wash him with soap and flannel. Thoroughly apply the Prescription XVIII., in Appendix, to the affected parts. Let him wear a fairly tight-fitting night-shirt with drawers. The next morning give a hot bath. Treat him in this way every night for four or five days. Put on clean underlinen after each ablution, and see that the soiled linen is well boiled in soda. His clothes should be disinfected by super-heated steam.

Ascertain, if possible, whence the contagion came, and thus guard the other members of the family. The towels, etc., of the affected child must be kept separate. The child himself should be isolated. There need be no fear of the attendant catching the disease, provided she uses ordinary caution and remembers that it is contagious.

419. *My child, for some little time, has limped and complained of pain in the knee; what is the matter?*

He probably is suffering from hip joint disease. You had better consult a doctor, and see if that be so.

420. *When is Circumcision necessary?*

If the front skin of the penis is very long, with a narrow orifice, and the child suffers from irritation of the part, as shown by his frequently having his hand there, circumcision is advisable.

421. *Does Stone in the Bladder occur in children, and, if so, what are the prominent symptoms?*

Yes, it is not uncommon in children. Sometimes the stone is passed in the water. The child cries out on passing water and at times the urine is mixed with

blood. Not unfrequently the child wets the bed at night. If he be old enough, he may complain of pain at the end of the penis. Girls very rarely suffer from stone.

422. *Have you any advice to give me as to my conduct towards my medical man?*

Give him your entire confidence. Be truthful and be candid with him. Tell him the truth, the whole truth, and nothing but the truth. Have no reservations; give him, as near as you can, a plain, unvarnished statement of the symptoms of the disease. Do not magnify, and do not make too light of any of them. Be prepared to state the exact time the child first showed symptoms of illness. If he has had a *shivering fit*, however slight, do not fail to tell your medical man of it. Note the state of the *skin;* if there be a "breaking-out"—be it ever so trifling—let it be pointed out to him. Make yourself acquainted with the quantity and with the appearance of the *urine*, taking care to have a little of it saved, in case the doctor may wish to see and examine it. Take notice of the state of the *motions*—their number during the twenty-four hours, their color, their smell, and their consistence, keeping one for his inspection. Never leave any of these questions to be answered by a servant; a mother is the proper person to give the necessary and truthful answers, answers which frequently decide the fate of the patient. Bear in mind, then, a mother's untiring care and love, attention and truthfulness, frequently decide whether, in a serious illness, the little fellow shall live or die! Fearful responsibility!

A medical man has arduous duties to perform; smooth, therefore, his path as much as you can, and you will be amply repaid by the increased good he will be able to do your child. Strictly obey a doctor's orders—in diet, in medicine, in everything. Never throw obstacles in his way. Never omit any of his sug-

gestions; for, depend upon it, that if he be a sensible man, directions, however slight, ought never to be neglected; bear in mind, with a judicious medical man,

"That nothing walks with aimless feet."—*Tennyson.*

If the case be severe, requiring a second opinion, *never, of your own accord, call in a physician, without first consulting and advising with your own medical man.* It would be an act of great discourtesy to do so. Inattention to the foregoing advice has frequently caused injury to the patient, and heart-burnings and ill-will among doctors.

Speak, in the presence of your child, with respect and kindness of your medical man, so that the former may look upon the latter as a friend—as one who will strive, with God's blessing, to relieve his pain and suffering. Remember the increased power of doing good the doctor will have if the child be induced to like, instead of dislike, him. Not only be careful that you yourself speak before your child respectfully and kindly of the medical man, but see that your domestics do so likewise; and take care that they are never allowed to frighten your child, as many silly servants do, by saying that they will send for the doctor, who will either give him nasty medicine, or will perform some cruel operation upon him. A nursemaid should, then, never for one moment be permitted to make a doctor an object of terror or dislike to a child.

Send, whenever it be practicable, for your doctor *early* in the morning, as he will then make his arrangements accordingly, and can by daylight better ascertain the nature of the complaint, more especially if it be a skin disease. It is difficult for him to form a correct opinion of the nature of a "breaking-out" either by gas or by candlelight. If the illness comes on at night, particularly if it be ushered in either with a severe shivering,

or with any other urgent symptom, no time should be lost, be it night or day, in sending for him—

> "A little fire is quickly trodden out
> Which, being suffer'd, rivers cannot quench."
>
> *Shakspeare.*

WARM BATHS.

423. *Have the goodness to mention the complaints of a child for which warm baths are useful?*

(1) Convulsions; (2) pains in the bowels, known by the child drawing up his legs, screaming violently, etc.; (3) restlessness from teething; (4) flatulence. The warm bath acts as a fomentation to the stomach and the bowels, and gives ease where the usual remedies do not rapidly relieve. (5) Bronchitis; (6) inflammation of the lungs; (7) stoppage of the water or difficulty in passing it; (8) sleeplessness; (9) some fevers.

424. *Will you mention the precautions and the rules to be observed in putting a child into a warm bath?*

Carefully ascertain, before he be immersed in the bath, that the water be neither too hot nor too cold. Carelessness, or over-anxiety to put him in the water as quickly as possible, has frequently, from his being immersed in the bath when the water was too hot, caused him great pain and suffering. From 96° to 98° Fahr. is the proper temperature of a warm bath. If it be necessary to add fresh warm water, let him be either removed the while, or let it not be put in when very hot; for if boiling water be added to increase the heat of the bath, it naturally ascends, and may scald him. Again, let the fresh water be put in at as great a distance from him as possible. The usual time for him to remain in a bath is a quarter of an hour or twenty minutes. Let the chest and the bowels be rubbed with the hand while he is in the bath. Let him be immersed in the bath as high up as the neck, taking care that he be the while supported under the arm-pits, and that his head be also rested. As soon as he comes out of the bath, he

ought to be carefully but quickly rubbed dry: and if it be necessary to keep up the action on the skin, he should be put to bed, between the blankets; or if the desired relief has been obtained, between the sheets, which ought to have been previously warmed. He will now most likely fall into a sweet refreshing sleep.

If the child be frightened at the sight of the bath, cover the bath with a sheet, then lay him on the sheet, and thus gently lower him into the water.

WARM EXTERNAL APPLICATIONS.

425. *In case of a child suffering pain either in his stomach or in his bowels, or in case he has a feverish cold, can you tell me the best way of applying external heat?*

In pain either of the stomach or of the bowels, there is nothing usually affords greater or speedier relief than the *external* application of heat. The following are four different methods of applying heat:—(1) A bag of hot salt—that is to say, powdered table-salt—put into the oven or in a frying-pan over the fire, and thus made hot, and placed in a flannel bag, and then applied, as the case may be, either to the stomach or to the bowels. Hot salt is an excellent remedy for these pains. (2) An india-rubber hot-water bottle,* half filled with hot water,—it need not be boiling,—applied to the stomach or to the bowels, will afford great comfort. (3) Another and an excellent remedy for these cases is a hot bran poultice. The way to make it is as follows:—Stir bran into a vessel containing either a pint or a quart (according to size of poultice required) of boiling water, until it be of the consistence of a nice soft poultice, then put into a flannel bag and apply it to the part affected. When cool, dip it from time to time in *hot* water. (4) In case a child has a feverish cold, especially if it be

* Every house, where there are children, ought to have one of these india-rubber hot-water bottles.

attended, as it sometimes is, with pains in the bowels, the following is a good external application :—Take a yard of flannel, fold it in three widths, then dip it into very hot water, wring it out tolerably dry, and apply it evenly and neatly round and round the bowels ; over this, and to keep it in its place, and to keep in the moisture, put on a *dry* flannel bandage, four yards long and four inches wide. If it be put on at bed-time, it ought to remain on all night. Where there are children, it is desirable to have the yard of flannel and the flannel bandage in readiness, and then a mother will be prepared for emergencies. Either the one or the other, then, of the above applications will usually, in pains of the stomach and bowels, afford great relief. There is one great advantage of the *external* application of heat —it can never do harm ; if there be inflammation, it will do good ; if there be either cramps or spasms of the stomach, it will be serviceable ; if there be colic, it will be one of the best remedies that can be used ; if it be a feverish cold, by throwing the child into a perspiration, it will be beneficial.

426. *How should a hot fomentation be made?*

Line a basin with a towel. Place flannel or spongiopiline in the towel. Pour boiling water over these, wring the towel, and so the flannel or spongiopiline, by twisting the ends in opposite directions. Remove the flannel ; shake once or twice in the air ; apply it to the temple to see if it is the right temperature ; envelop the part ; cover with a piece of pink jaconet ; over all place a layer of cotton wool, and fix with a flannel roller. Turpentine or laudanum may be sprinkled on if ordered.

427. *How should a hot pack be made and administered?*

Prepare the bed as follows :—Place two blankets on the mattress, cover these with a mackintosh, and next a blanket. One half of the blankets and mackintosh should be on the bed, the other half must hang depen-

dent from the side. Wring a blanket out of boiling water with a wringer, and when of the right temperature quickly envelop the body and limbs in it up to the neck. Then cover the child with the blankets and mackintosh hanging from the side of the bed, tucking him in well. The pack should be changed every hour. *During the administration of a pack the mother or nurse should not leave the patient.* The temperature should be taken every half hour, as the pack may induce high fever. If the temperature rises above 100° Fahr., report the occurrence to your doctor, and await his instructions before continuing the treatment. Hot packs are often ordered in diseases of the kidneys.

428. *How should a linseed meal poultice be made?*

A clean saucepan being on the fire, put into it a handful of linseed meal, and hot water enough to make it like a thick paste, meanwhile keeping it stirred with an iron spoon. Add linseed meal and water according to the size of poultice required. Have your cloth or towel ready on a hot plate. Spread the linseed meal quickly on the cloth, making an even thickness. Then dip your iron spoon into hot water and run it over the linseed meal. You will notice that this will give the poultice now made a glazed surface. The advantage of this is that the linseed will not stick to the patient's skin when the poultice is removed. If the poultice has to be carried upstairs put it between two hot plates. After applying the poultice, cover it with a piece of pink jaconet to keep in the moisture, and then bandage or apply a bath towel to retain it in position.

429. *Are there any precautions necessary in applying warm external applications?*

There are several necessary precautions. (1) See that the application, whether fomentation or poultice, is not *too hot*, so as to burn the patient. A good test is to apply it to the back of your own hand, and if you can bear the heat, you may safely apply it. (2) Guard

your child against catching cold either by the cooling of the application itself or by not wrapping him up when it is discontinued. (3) If you commence poulticing, the poultice must be renewed every three or four hours, *night as well as day.* Better no poultice than a cold one to increase the mischief it was intended to drive away. When poultices are discontinued, the parts should be quickly dried and covered with warm flannel or cotton wool.

430. *Some doctors prefer to envelop the chest in cotton wool rather than use poultices in lung diseases: how would you make a cotton wool jacket?*

Take two pieces of flannel, one for the back of the chest, the other for the front. Cut the flannel in the form of breast and back plates. Sew tapes to both sides and tops: one or two tapes back and front for the neck at the shoulder, and tapes at the sides to reach from the arm-pits downwards. On the separate pieces of flannel quilt cotton wool. Place the flannel next to the chest. The front and back pieces can be readily fixed by tying the opposing tapes, and the chest completely enveloped. Two jackets should be made, so that there can be a frequent change. Should stimulating applications, such as soap liniment, or compound camphor liniment, or turpentine liniment be ordered, they can be readily applied.

ACCIDENTS.

431. *Supposing a child to cut his finger, what is the best application?*

Wash the wound with warm water in which carbolic acid has been dissolved, in the proportion of one tablespoonful to a pint of water, taking care that the acid is thoroughly dissolved. Remove any particles of dirt adhering to the wound with absorbent cotton wool dipped in the lotion. If Carbolic Acid is not at hand, Condy's Fluid may be used, sufficient being added to warm water to make the fluid pink. Boracic Acid

lotion may also be used as recommended for syringing out the ear. If no surgical dressings are at hand, the wound should be wrapped in *perfectly clean* linen or cotton rag, soaked in one of the solutions above named. This may be covered with a piece of pink jaconet or gutta percha tissue, and fixed with a bandage. If it be a severe cut, surgical aid, of course, will be required. *Furious bleeding can always be stopped by applying pressure with the finger until surgical assistance arrives.* Press against a bone if possible. Instead of the finger, a penny piece or a piece of cork, enveloped in a clean rag or handkerchief, can be bound over the bleeding spot by a handkerchief or bandage.

432. *If a child receive a blow, causing a bruise, what had better be done?*

Immediately after receiving a blow, apply ice enveloped in a cloth or bladder. As a substitute for ice, a surface of cold metal may be employed. Subsequently use a lotion made by adding three teaspoonfuls of whisky or brandy to two tablespoonfuls of water. A handkerchief or piece of rag is to be soaked in the lotion and applied over the part—keep it constantly wet.

433. *How would you treat a sprain?*

Sprains may be treated by the immediate application of a bandage soaked in cold water and firmly applied round the joint.

434. *If a child fall upon his head and be stunned, what ought to be done?*

If he fall upon his head and be stunned, he will look deadly pale, very much as if he had fainted. He will in a few minutes, in all probability, regain his consciousness. Sickness frequently supervenes; send instantly for a medical man.

Put him to bed as soon as possible, and keep him there quietly until the doctor's arrival. Exclude all visitors. In the meanwhile apply to the head ice envel-

oped in a cloth or bladder, or a rag soaked in spirit lotion (see Conversation 432). If there is prostration with cold extremities, apply hot water bottles to the feet and omit the applications to the head.

435. *A nurse sometimes drops an infant and injures his back: what ought to be done?*

Instantly send for a surgeon; omitting to have proper advice in such a case has frequently made a child a cripple for life. A nurse frequently, when she has dropped her little charge, is afraid to tell her mistress; the consequences may be deplorable. If ever a child screams violently without any assignable cause, and the mother is not able for some time to pacify him, the safer plan is that she send for a doctor, in order that he might strip and carefully examine him. Much after misery might often be averted if this plan were more frequently followed.

436. *Have you any remarks to make and directions to give on accidental poisoning by lotions, by liniments, etc.?*

It is a culpable practise of either a mother or nurse to leave *external* applications within the reach of a child. It is also highly improper to put a mixture and an *external* application, as a lotion or a liniment on the same tray or on the same mantelpiece. Many liniments contain large quantities of opium, a teaspoonful of which would be likely to cause the death of a child. "Hartshorn and oil" has frequently been swallowed by children, and in several instances has caused death. Many lotions contain sugar of lead, which is also poisonous. There is not, fortunately, generally sufficient lead in the lotion to cause death; but if there be not enough to cause death, there may be more than enough to make the child very poorly. All these accidents occur from disgraceful carelessness.

A mother or a nurse ought *always*, before administering a dose of medicine to a child, to read the label on

the bottle ; by adopting this simple plan many serious accidents and much after misery might be averted. Again, I say, let every lotion, every liniment, and indeed everything for *external* use, be either locked up or be put out of the way, and far away from all medicine that is given by the mouth. *This advice admits of no exception.*

If your child has swallowed a portion of a liniment containing opium, instantly send for a medical man (see Conversation 448).

If a child has swallowed "hartshorn and oil," force him to drink vinegar and water, lemon-juice and water sweetened with sugar, barley water, and thin gruel.

If he has swallowed a lead lotion, give him Epsom Salts (Sulphate of Magnesia), followed by a mustard emetic. After he has been well sick, give him plenty of milk to drink.

If he has swallowed a carbolic lotion, give him olive oil, and try and make him sick by putting your finger down his throat.

If he has swallowed a mercurial lotion, give him whites and yolks of eggs raw.

If he has been eating poisonous fungi or shell fish, give a mustard emetic, and, when this has acted, castor oil. *In all cases of poisoning send for a doctor immediately, saying what has happened and the nature of the poison.*

437. *Are not lucifer matches poisonous?*

Certainly, they are very poisonous ; it is, therefore, desirable that they should be put out of the reach of children. A mother ought to be very strict with servants on this head. Moreover, lucifer matches are not only poisonous but dangerous, as a child might set himself on fire with them. A little boy three years old was left alone for two or three minutes, during which time he obtained possession of a lucifer match, and struck a light by striking the match against the wall. Instantly

there was a blaze. Fortunately for him, in his fright, he threw the match on the floor. His mother at this moment entered the room. If his clothes had taken fire, which they might have done, had he not thrown the match away, or if his mother had not been so near at hand, he would, in all probability, have either been severely burned or have been burned to death.

438. *If a child's clothes take fire, what ought to be done to extinguish them?*

Lay him on the floor, then roll him in the rug, or in the carpet, or in the door-mat, or in any thick article of dress you may either have on, or have at hand—if it be woolen so much the better ; or throw him down and roll him over and over on the floor, as, by excluding the atmospheric air, the flame will go out—hence the importance of a mother cultivating presence of mind. If parents were better prepared for such emergencies, such horrid disfigurations and frightful deaths would be less frequent.

You ought to have a proper fire-guard before the nursery grate, and should be strict in not allowing your child to play with fire. If he still perseveres in playing with it, when he has been repeatedly cautioned not to do so, he should be punished for his temerity. If anything would justify corporal chastisement, it would surely be such an act of disobedience. There are only two acts of disobedience that I would flog a child for, namely, the playing with fire, and the telling of a lie ! If after various warnings and wholesome corrections he still persist, it would be well to let him slightly taste the pain of his doing so, either by holding his hand for a moment very near the fire, or by allowing him to slightly touch the hot bar of the grate or the flame of the candle. Take my word for it the above plan will effectually cure him—he will never do it again. It would be well for the children of the poor to have pinafores made either of woolen or of stuff materials. The

dreadful deaths from burning, which so often occur in winter, too frequently arise from *cotton* pinafores first taking fire.*

If all dresses, after being washed, and just before being dried, were soaked for a short time in a solution of tungstate of soda, such clothes, when dried, would be perfectly fire-proof.

Tungstate of soda may be used either with or without starch; but full directions for the using of it will, at the time of purchase, be given by the chemist.

439. *Is a burn more dangerous than a scald?*

Burns and scalds are equally dangerous. Burns and scalds are more dangerous on the body, especially on the chest, than either on the face or on the extremities. The younger the child, the greater the danger.

Scalds both of the mouth and the throat, from a child drinking boiling water from the spout of a teakettle, are most dangerous. A poor person's child is, from the unavoidable absence of the mother, sometimes shut up in the kitchen by himself, and being very thirsty, and no other water being at hand, he is tempted, in his ignorance, to drink from the teakettle. If the water be unfortunately boiling, it will most likely prove to be a fatal draught to him!

440. *What are the best immediate applications to a scald or to a burn?*

A severe burn or scald always requires the services of a medical man. Nothing should be applied until his arrival, with the exception of wrapping the part in cotton wool to relieve pain. Do not attempt to remove the clothes, as you may do the injured surface great damage, and cause much unnecessary pain and shock to the system. If there is shock, and the vitality is greatly depressed, as evidenced by pallor, faintness, coldness, and

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* "It has been computed that upwards of 1,000 children are annually burned to death by accident in England."

trembling, wrap the child in blankets, with hot water bottles to his feet, and place him near the fire. If over two years of age, give him from two to four teaspoonfuls of brandy; if under two, a teaspoonful.

Simple burns or scalds should be smeared over with clean olive oil or vaseline, and then wrapped in cotton wool, or, if obtainable, apply strips of rag or lint on which Boracic ointment has been smeared. Do not hold the hand, if that be the part affected, to the fire with the idea of *drawing out the burn*. Such a proceeding is acutely painful, and utterly useless. I have a very lively recollection of having gone through this performance when a child, and I call attention to the superstition to save other poor sufferers from nursery experiments.

Another remedy for burns is "carron oil," which is made by mixing equal parts of linseed oil and lime water in a bottle, and shaking it up before using it. Boracic Acid ointment, spread on lint, is, however, the best remedy, and it would be as well for you to keep a pot of this by you for emergencies.

441. *If a bit of quick-lime should accidentally enter the eye of my child, what ought to be done?*

It will be useless for you to attempt the removal of the lime; spasm of the lids will prove too strong for this without surgical assistance, and you will lose precious moments of valuable time. Well bathe the eye *inside* with vinegar and water—one part of vinegar to three parts of water. That is to say, a quarter fill a clean half-pint medicine bottle with vinegar, and then fill it up with spring water, and it will be ready for use. Let the eye be bathed for at least a quarter of an hour with it. The vinegar will neutralize the lime, and will rob it of its burning properties.

Having bathed the eye with vinegar and water for a quarter of an hour, bathe it for another quarter of an hour simply with a little warm water; after which, drop into the eye two or three drops of the best sweet oil;

put on an eye-shade made of three thicknesses of linen rag, covered with green silk; and then do nothing more until the doctor arrives.

If the above rules be not *promptly* and *properly* followed out, the child may irreparably lose his eye-sight; hence the necessity of conversations of this kind, to tell a mother, provided *immediate* assistance cannot be obtained, what ought *instantly* to be done; for moments, in such a case, are precious.

While doing all that I have just recommended, let a surgeon be sent for, as a smart attack of inflammation of the eye is very apt to follow the burn of lime; but the inflammation may, provided the *previous* directions have been *promptly* and *efficiently* followed out, with appropriate treatment, soon subside. The "sight" of the eye, however, may be seriously damaged, notwithstanding the prompt treatment.

The above accident is apt to occur to a child who is standing near a building when the slacking of quick-lime is going on, and where portions of lime in the form of powder are flying about the air. It would be well not to allow a child to stand about such places, as prevention is always better than cure. *Quicklime* is sometimes called *caustic-lime:* it well deserves its name, for it is a *burning-lime,* and if proper means be not promptly used, will soon burn away the sight.

442. *If any other foreign substance should enter the eye, what is the best method of removing it?*

If there be grit, or sand, or dust, or particle of coal, or a gnat, or hair, or an eyelash in the eye, it ought to be tenderly removed by a small tightly-folded paper spill, holding down the lower lid with the fore-finger of the left hand the while.

If a particle of metal be sticking on the "sight," as it sometimes does, it will require the skilled hand of a surgeon to remove it. Spasm of the lids is usually so great, if the foreign body is well inside, that attempts at

removal will prove abortive, and surgical assistance must be sought. Put two or three drops of sweet oil into the eye, and take him to the doctor. Very frequently the foreign body is under the upper lid.

Any foreign substance, however minute, in the eye, is very painful; but a piece of burning lime is excruciating. Shakspeare gives a graphic description of the pain from the presence of any foreign substance, however small, in the eye:

"O heaven!—that there were but a mote in yours,
A grain, a dust, a gnat, a wand'ring hair,
Any annoyance in that precious sense!
Then, feeling what small things are boist'rous there,
Your vile intent must needs seem horrible."

443. *What ought to be done in a case of choking?*

How often does a hungry little child, if not carefully watched, fill his mouth so full, and swallow lumps of food in such hot haste, as to choke himself—

"With eager feeding, food doth choke the feeder."
Shakspeare.

Treatment.—Instantly put your finger into the throat and feel if the substance be within reach; if it be food, force it down, and thus liberate the breathing; should it be a hard substance, endeavor to hook it out; if you cannot reach it, give a good smart blow or two with the flat of the hand on the back; or, as recommended by a contributor to *The Lancet*, on the chest, taking care to "seize the little patient, and place him between your knees sideways, and in this or some other manner to *compress the abdomen* [the belly], otherwise the power of the blow will be lost by the yielding of the abdominal parietes [walls of the belly], and the respiratory effort will not be produced." If that does not have the desired effect, tickle the throat with your finger, so as to insure immediate vomiting, and the subsequent ejection of the offending substance. Or suspend the child by his heels and shake him or slap his shoulders.

444. *Should my child be bitten by a dog supposed to be mad, what ought to be done?*

Instantly thoroughly suck the wound, which can be safely done by any one who has no sore on the lips or tongue, of course spitting out all the blood drawn from the parts. Next well rub into the wound for the space of five or ten *seconds*—seconds, *not* minutes—a stick of nitrate of silver (lunar-caustic), or crystals of carbolic acid. The stick of lunar-caustic* should be pointed, like a cedar pencil for writing, in order the more thoroughly to enter the wound.† If you have no lunar-caustic at hand, burn the bitten part at once with a red-hot skewer, or wire, or lighted fusee. At the same time keep a firm hold of the part above the bite, by the application of a tight bandage, so as to prevent the poison being carried away by the blood-vessels.

Never kill a dog supposed to be mad which has bitten a child, or any one else, until it has, past all doubt, been ascertained whether the animal be really mad or not. The eminent specialist and great authority on canine diseases, Mr. A. J. Sewell, F. R. C. V. S., of London, says: "This can be ascertained for certain by keeping the animal eight days, for if he is alive at the end of that time the dog is not mad or rabid. Of course, a veterinary surgeon would be able to tell at once whether the dog was suffering from rabies or not."‡ He ought, of course, to be tied up; and be carefully watched, and be prevented the while from biting any one else.

A cat sometimes goes mad, and its bite may cause hydrophobia. A bite from a mad cat ought to be treated precisely in the same manner. Arrangements should be

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* Mr. Youatt trusted to cauterization with nitrate of silver. He was bitten seven times, and operated on 400 people. Only one of these died—he considered it due to fright.

† A stick of *pointed* nitrate of silver, in a case, ready for use, may be procured of any respectable druggist.

‡ In a letter to the Author, June, 1897.

made to carry out Pasteur treatment. This consists in a series of inoculations of an animal preparation, skilfully prepared from the spinal cords of rabid animals. The method of preparation attenuates the virus. Gradually the patient's system is accustomed to increasing strengths of the poison, until, finally, virulent virus can be inoculated without producing any ill effects, the patient then being hydrophobia proof. By this method of treatment, the system can be made hydrophobia proof before the disease has time to manifest itself in the ordinary course. Pasteur treatment is a great success. Mr. A. J. Sewell tells me that he always advises any one who has been bitten by a rabid dog to submit to Pasteur treatment.

445. *What is the treatment for a bite from a dog or cat not mad?*

A bite from a dog or a cat not mad should be treated as an ordinary wound (see Conversation 431).

446. *What are the best remedies in case of a sting from either a bee or a wasp?*

Extract the sting, if it has been left behind, either by means of a pair of dressing forceps, or by the pressure of the hollow of a small key— a watch-key will answer the purpose; then the blue-bag (which is used in washing) moistened with water, should be applied to the part; or a few drops of solution of potash, * or salvolatile; or "apply moist snuff or tobacco, rubbing it well in," † and renew from time to time either of them. But the most valuable remedy of all is to rub the stung part with the cut surface of a *raw onion*, which relieves the pain, often immediately, and causes the swelling to subside. Should there be much swelling or inflammation, foment the part with Boracic Acid fomentations. In eating apricots, or peaches, or other fruit, they ought beforehand to be carefully examined, in order to ascertain that no wasp is

* Which may be instantly procured of a druggist.

† A Bee-master.—*The Times.*

lurking in them ; otherwise, it may sting the throat, and serious consequences will ensue.

447. *If a child receives a fall, causing the skin to be grazed, can you tell me of a good application?*

Apply Boracic Acid Ointment, or Zinc Ointment, or allow the dried blood to form a scab.

448. *In case of a child swallowing by mistake either Laudanum, or Paregoric, or any other preparation of Opium what ought to be done?*

Give, as *quickly as possible*, a strong mustard emetic ; that is to say, mix two teaspoonfuls of flour of mustard in half a teacupful of water, and force it down his throat. If free vomiting be not induced, tickle the upper part of the swallow with a feather ; drench the little patient's stomach with large quantities of warm water. As soon as it can be obtained from a druggist, give him Prescription XIX., in Appendix, as an emetic draught.

If he is heavy with sleep, smack his buttocks and his back ; walk him, or lead him, or carry him about in the fresh air ; shake him by his shoulders ; pull his hair ; tickle his nostrils ; shout and holla in his ears ; plunge him into a warm bath and then into a cold bath alternately ; well sponge his head and face with cold water ; dash cold water on his head, face and neck ; and do not, on any account, until the effects of the opiate are gone off, allow him to go to sleep, if you do, he will never wake again ! While doing all these things, of course, you ought to lose no time in sending for a medical man.

449. *Have you any observations to make on parents allowing the Deadly Nightshade—the Atropa Belladonna —to grow in their gardens?*

I wish to caution you *not* on any account, to allow the Belladonna—the Deadly Nightshade—to grow in your garden. The whole plant root, leaves, and berries—is poisonous ; and the berries, being attractive to the eye, are every alluring to children.

450. *What is the treatment of poisoning by Belladonna*

Instantly send for a medical man. In the meantime give an emetic—a mustard emetic; mix two teaspoonfuls of flour of mustard in half a teacupful of warm water, and force it down the child's throat: then drench him with warm water, and tickle the upper part of his swallow either with a feather or with the finger, to make him sick. The grand remedy is an emetic to bring up the offending cause. If the emetic has not acted sufficiently, the medical man when he arrives may deem it necessary to use the stomach-pump; but, remember, not a moment must be lost, for moments are precious in a case of belladonna poisoning, in giving a mustard emetic, and repeating it again and again until the enemy be dislodged. Dash cold water upon his head and face: the best way of doing which is by means of a large sponge, holding his head and his face over a wash-hand basin, half filled with cold water, and filling the sponge from the basin, and squeezing it over his head and face, allowing the water to continuously stream over them for an hour or two, or until the effects of the poison have passed away. This sponging of the head and face is very useful in poisoning by opium, as well as in poisoning by belladonna; indeed, the treatment of poisoning by the one, is very similar to the treatment of poisoning by the other. Therefore for the further treatment of poisoning by belladonna, I beg to refer you to a previous Conversation on the treatment of poisoning by opium.

In belladonna poisoning, the symptoms that will attract your attention, are brilliantly red cheeks and face, widely dilated pupils—the eyes are very bright and prominent—great excitement, and quickened breathing. The mouth is dry, and there is a feeling of dryness of the throat (soreness?). I once treated a party of children, who were wildly excited and with flushed faces, glittering eyes, and much laughter, were chasing imaginary butterflies with their caps and hats

in the out-patient room. Delirium is succeeded by drowsiness, and coldness of the extremities. When he has been sick, he may be given tea, which has been standing a long time on the tea leaves.

451. *Should a child put either a pea or a bead, or any other foreign substance, up the nose, what ought to be done?*

Send for a doctor, who will readily remove it. If it be a pea, and it be allowed for any length of time to remain in, it will swell, and will thus become difficult to extract, and may produce great irritation and inflammation. A child ought not to be allowed to play with peas or with beads (unless the beads are on a string), as he is apt, for amusement, to push them up his nose.

452. *If a child has put either a pea, a bean, a bead, a cherry-stone, or any other smooth substance, into his ear, what ought to be done to remove it?*

Poking at the ear will, in the majority of cases, only send the substance further in, and will make it more difficult for the medical man to remove. On no account use tweezers, or forceps; you may do irreparable damage to the ear-drum and delicate ear-bones. The surgeon will, in all probability, syringe the ear; therefore, have a supply of warm water in readiness for him. There is no cause for alarm: skilful syringing will expel the foreign body.

453. *If an earwig, or any other living thing, should get into the ear of a child, what ought to be done?*

Lay the child on his side the affected ear being uppermost, and fill the ear, from a teaspoon, with either warm water or sweet oil. The water or oil will carry the living thing, whatever it be, out of the ear, and the child at once will be relieved.

454. *If a child swallow a piece of broken glass, what ought to be done?*

Avoid purgatives, as the free action of the bowels

would be likely to force the piece of glass into the lining membrane of the bowels, and thus would wound it, and might cause ulceration, and even death. The object of treatment will be to allow them to pass through the intestines well enveloped by the other contents of the tube; and for this purpose a solid, farinaceous diet, especially large quantities of mashed potatoes, should be ordered, and purgatives scrupulously avoided.

455. *If a child swallow a pin, what should be done?*

Treat him as for broken glass. Give him no aperients, or it might, in action, force the pin into the bowel. I have known more than one instance in which a child, after swallowing a pin, has voided it in his motion.

456. *If a child swallow a coin of any kind, is danger likely to ensue, and what ought to be done?*

There is, as a rule, no danger. Feed him as you would for a piece of broken glass or a pin. The evacuations ought to be carefully examined until the coin be discovered. I once knew a child swallow a penny piece and pass it in his stool.

457. *If a child, while playing with a small coin (such as a five cent silver piece), or any other substance, should toss it into his mouth, and inadvertently allow it to enter the windpipe, what ought to be done?*

If the foreign body passes into the glottis he will have the symptoms of Croup (see Conversation 276). If it escapes this and enters the windpipe spasms of the glottis may happen now and then when the coin strikes the part in its efforts to escape. If it passes into a smaller tube (usually the right bronchus) it will stick there in all probability. Should this happen, very serious mischief will be done to the corresponding lung. Its situation could now be determined by the new photography, the X rays, with great accuracy.

Take hold of him by the legs, allowing his head to hang downwards; then give him, with the palm of your

hand, several sharp blows on his back, and you may have the good fortune to see the coin coughed out of his mouth. If this plan does not succeed, and he is made worse by it, send instantly for a medical man. If the coin or foreign body is not dislodged, it will be necessary to perform an operation and open his windpipe (tracheotomy).

458. *How can a mother guard a child from having an accident?*

By strict supervision over him on her own part, and by not permitting her child to be left to careless servants; by not allowing him to play with fire, to swing over banisters, and to have knives and playthings of a dangerous character; to keep all poisonous articles and cutting instruments out of his reach; and above all and before all, insisting, lovingly, affectionately, but firmly, upon implicit obedience.

Accidents generally arise from one of three causes, namely, from wilful disobedience, or from gross carelessness, or from downright folly. I quite agree with Davenant, that they do not arise from chance—

> "If we consider accident,
> And how, repugnant unto sense,
> It pays desert with bad event,
> We shall disparage Providence."

PART III.

BOYHOOD AND GIRLHOOD.

Just at the age 'twixt boy and youth.
When thought is speech. and speech is truth.—SCOTT.

'Tis with him e'en standing water,
Between man and boy.—SHAKSPEARE.

Standing with reluctant feet,
Where the brook and river meet,
Womanhood and childhood fleet!—LONGFELLOW.

ABLUTION, ETC.

459. *Have you any remarks to make on the ablution of boys and girls?*

How is it that a mother thinks it absolutely necessary, which it really is, that her babe's *whole* body should, every morning, be washed, and yet does not deem it needful that her girl or boy, of twelve years old, should go through the process of daily and *thorough* ablution? If the one case be necessary, sure I am that the other is equally, if not more, needful.

Thorough ablution of the body every morning at least, is essential to health. I maintain that no one can be in the enjoyment of perfect health who does not keep his skin—the whole of his skin—clean. Moreover, a person who does not keep his skin clean is more susceptible of contracting contagious disease, such as smallpox, cholera, diphtheria, scarlet fever, etc.

Thorough ablution of the body is a grand requisite of health. I maintain that no one can be perfectly healthy unless he thoroughly wash his body—the whole of his body; if filth accumulate, which it is sure to do if not washed off, disease must, as a matter of course, follow. Besides, ablution is a delightful process; it makes one feel fresh and sweet and young and healthy; it makes the young look handsome, and the old look

young! Thorough ablution might truly be said both to renovate and to rejuvenize! A scrupulously clean skin is one of the grand distinctive characteristics both of a lady and of a gentleman.

Dirty people are not only a nuisance to themselves, but to all around; they are not only a nuisance, but a danger, as their dirty bodies are apt to carry from place to place contagious diseases.

It is important that parts that are covered should be kept cleaner than parts exposed to the air, as dirt is more apt to fester in dark places; besides, parts exposed to the air have the advantage of the air's sweetening properties; air acts as a bath, and purifies the skin amazingly.

It is desirable to commence a complete system of washing early in life, as it then becomes a second nature, and cannot be dispensed with afterwards. One accustomed to the luxury of his morning ablution, if anything prevented him from taking it, would feel most uncomfortable; he would as soon think of dispensing with his breakfast as with his bath.

Every boy, every girl, and every adult ought each to have either a room or a dressing-room to himself or to herself, in order that he or she might strip to the skin and thoroughly wash themselves; no one can wash properly and effectually without doing so.

Now for the paraphernalia required for the process:—(1) A large nursery basin, one that will hold six or eight quarts of water; (2) a piece of coarse flannel, a yard long and half a yard wide; (3) a large sponge; (4) a tablet either of the best yellow or of curd soap; (5) two towels—one being a diaper, and the other a Turkish rubber. Now as to the manner of performing ablution. You ought to fill the basin three parts full with water. Having well soaped and cleansed your hands, resoap them, dip your head and face into the water; with the soaped hands well rub and wash your

head, face, neck, chest and arm-pits ; having done this, take the wetted sponge, and go over all the parts previously traveled over by the soaped hands ; fold the flannel as you would a neckerchief, and dip it in the water ; throw it, as you would a skipping-rope, over your shoulders, and move it a few times from right to left and from left to right, and up and down, and then across the back and loins ; this done, dip the sponge in the water, and, holding your head over the water, let the water stream from the sponge a time or two over your head, neck and face. Dip your head and face in the water, then put your hands and arms (as far as they will go) into the water, holding them there while you can count thirty. Having reduced the quantity of water to a third of a basinful, place the basin on the floor, and sit (while you can count fifty) *in* the water ; put one foot at a time in the water, and quickly rub, with soaped hands, up and down your leg, over the foot, and pass your thumb between each toe (this latter procedure tends to keep away soft corns) ; take the sponge, filled with water, and squeeze it over your leg and foot, from the knee downwards, and serve your other leg and foot in the same way. By adopting the above plan the whole of the body will, every morning, be thoroughly washed.

A little warm water might at first, and during the winter time, be added, to take off the chill, but the sooner quite cold water is used the better. The body ought to be quickly dried (taking care to wipe between each toe), first with the diaper, and then with the Turkish rubber. In drying your back and loins, you ought to throw, as you would a skipping-rope, the Turkish rubber over your shoulders, and move it a few times from side to side, until the parts be dry.

Although the above description is necessarily prolix, the washing itself ought to be very expeditiously performed ; there should be no dawdling over it, otherwise

the body will become chilled, and harm, instead of good, will be the result. If due despatch be used, the whole of the body might, according to the above method, be thoroughly washed and dried in the space of fifteen minutes.

A boy ought to wash his head, as above directed, every morning; a girl who has much hair once a week, with soap and water, with flannel and sponge. The hair, if not frequently washed, is very dirty, and nothing is more repulsive than a dirty head.

It might be said, "Why do you go into particulars? Why dwell so much upon minutiæ? Every one, without being told, knows how to wash himself!" I reply that "Very few people do know how to wash themselves properly; it is a misfortune that they do not. They would be healthier and happier and sweeter if they did!"

460. *Have you any remarks to make on boys and girls learning to swim?*

Let me strongly urge you to let your sons and daughters be *early* taught to swim. Swimming is a glorious exercise—one of the best that can be taken; it expands the chest; it promotes digestion; it develops the muscles, and brings into action some muscles that in any other form of exercise are but seldom brought into play; it strengthens and braces the whole frame, and thus makes the swimmer resist the liability of catching cold; it gives both boys and girls courage, energy, and self-reliance—splendid qualities in this rough world of ours. Swimming is oftentimes the means of saving human life; this of itself would be a great recommendation of its value. It is a delightful amusement; to breast the waves is as exhilarating to the spirits as clearing on horseback a five-barred gate.

The art of learning to swim is quite as necessary to be learned by a girl as by a boy; the former has similar muscles, lungs, and other organs to develop to the latter.

It is very desirable that in large towns swimming baths for ladies should be instituted. Swimming ought, then, to be a part and parcel of the education of every boy and of every girl.

Swimming does not always agree. This sometimes arises from a person being quite cold before he plunges into the water. Many people have an idea that they ought to go into the water while their bodies are in a cool state. Now this is a mistaken notion, and is likely to produce dangerous consequences. The skin ought to be comfortably warm, neither very hot nor very cold, and then the bather will receive every advantage that cold bathing can produce. If he go into the bath whilst the body is cold, the blood becomes chilled, and is driven to internal parts, and thus mischief is frequently produced.

A boy, after using cold bathing, ought, if it *agree* with him, to experience a pleasing glow over the whole surface of his body ; his spirits and appetite should be increased, and he ought to feel stronger ; but if it *disagree* with him, a chilliness and coldness, a lassitude and a depression of spirits, will be the result ; the face will be pale and the features will be pinched, and, in some instances, the lips and nails will become blue. All these are signs that *cold* bathing is injurious, and therefore, that it ought on no account to be persevered in, unless these symptoms have hitherto proceeded from his going into the bath whilst he was quite cold. He may, previously to entering the bath, warm himself by walking briskly for a few minutes. Where *cold* sea water bathing does not agree, *warm* sea bathing should be substituted.

461. *Which do you prefer—sea bathing or fresh water bathing?*

Sea bathing. It is incomparably superior to fresh water bathing. The salt water is far more refreshing and invigorating ; the battling with the waves is more exciting ; the sea breezes, blowing on the nude body,

breathe health and strength into the frame, and comeliness into the face; the sea water and the sea breezes are splendid cosmetics; the salt water is one of the finest applications, both for strengthening the roots and brightening the color of the hair, provided grease and pomatum have not been previously used.

462. *Have you any directions to give as to the time and the seasons, and the best mode of sea bathing?*

Summer and autumn are the best seasons of the year for cold sea bathing—August and September being the best months. To prepare the skin for the cold sea bathing, it would be well, before taking a dip in the sea, to have on the previous day a warm salt water bath. It is injurious, and even dangerous, to bathe *immediately* after a *full* meal; the best time to bathe is about two hours after breakfast—that is to say, about eleven or twelve o'clock in the forenoon. The bather, as soon as he enters the water, ought *instantly* to wet his head; this may be done either by his jumping at once from the float into the water, or, if he have not the courage to do so, by plunging his head without loss of time, *completely* under the water. He should remain in the water about a quarter of an hour, but never longer than half an hour. Many bathers, by remaining a long time in the water, do themselves great injury. If sea bathing be found to be invigorating—and how often to the delicate it is proved to be truly magical—a patient may bathe once every day, but on no account oftener. If he be not strong, he had better, at first, bathe only every other day, or even only twice a week. The bather, after leaving the bath-house, ought for half an hour to take a brisk walk, in order to promote a reaction, and thus to cause a free circulation of the blood.

Should the bather feel somewhat faint after coming out of the water, you had better cover him all over with towels, and then give him some milk with a little whisky in it. Always, during the first week of sea bathing,

and when necessary, take a flask of warm milk and whisky with you.

463. *When may a tepid bath* * *be used?*

A tepid bath may be taken at almost any time, and a bather may remain longer in one, with safety, than in a cold bath.

464. *Do you approve of warm bathing?*

A warm bath † may with advantage be occasionally used—say, once a week. A warm bath cleanses the skin more effectually than either a cold or a tepid bath; but, as it is more relaxing, ought not to be employed so often as either of them. A person should not continue longer than ten minutes in a warm bath. Once a week, as a rule, is quite often enough for a warm bath, and it would be an excellent plan if every boy, and girl, and adult would make a practise of having one *regularly* every week, unless any special reason should arise to forbid its use.

465. *But does not warm bathing, by relaxing the pores of the skin, cause a person to catch cold if he expose himself to the air immediately afterwards?*

There is, on this point, a great deal of misconception and unnecessary fear. A person, *immediately* after using a warm bath, should take proper precautions—that is to say, he must not expose himself to draughts, neither ought he to wash himself in *cold* water, nor should he, *immediately* after taking one, drink *cold* water. But he may follow his usual exercise or employment, provided the weather be fine, and the wind be neither in the east nor the northeast. Warm baths are best taken in the evening before bedtime.

Every house of any pretension ought to have a bath-room. Nothing would be more conducive to health than regular, systematic bathing. A hot and cold bath,

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* A tepid bath from 85 to 92 degrees Fahrenheit.

† A warm bath from 92 to 98 degrees Fahrenheit.

a sitz bath, and a shower bath—each and all in their turn—are grand requisites to preserve and to procure health. If the house cannot boast of a bath-room, then the corporation baths (which nearly every large town possesses) ought to be liberally patronized.

466. *Will you give me a list of the different temperatures applicable in bathing?*

The following are the recognized temperatures for the different baths named :—

Bath.	*Temperature of Water.*
The Cold	33° to 65° Fahr.
,, Cool	65° to 75° ,,
,, Temperate	75° to 85° ,,
,, Tepid	85° to 92° ,,
,, Warm	92° to 98° ,,
,, Hot	98° to 112° ,,

Remember to use your thermometer always before putting a child into a hot bath.

MANAGEMENT OF THE HAIR.

467. *What is the best application for the hair?*

A sponge and *cold* water, and two good hair brushes. Avoid grease, pomatum, bandaline, and all abominations of that kind. There is a natural oil of the hair, which is far superior to any oil ! The best scent for the hair is an occasional dressing of soap and water ; the best beautifier of the hair is a downright thorough good brushing with two good hair-brushes ! Again, I say, *avoid grease of all kinds to the hair.*

If the hair cannot, without some application, be kept tidy, then a little scented castor-oil might, by means of an old tooth-brush, be used to smooth it ; castor oil is, for the purpose, one of the most simple and harmless of dressings ; but, as I said before, the hair's own natural oil cannot be equaled, far less surpassed ! A little glycerine and lime-juice is a good hair-dressing.

If the hair fall off, the castor-oil, scented with a few

drops either of otto of roses, or of essence of bergamot, is a good remedy to prevent its doing so; a little of it ought, night and morning, to be well rubbed into the roots of the hair. Cocoanut oil is an excellent application for the falling off of the hair, and can never do harm, which is more than can be said of many vaunted remedies for the hair! Compound camphor liniment is another hair restorer.

CLOTHING.

468. *Do you approve of a boy wearing flannel next the skin?*

Ours is so variable a climate, and the changes from heat to cold, and from dryness to moisture of the atmosphere, are so sudden, that some means are required to guard against their effects. Flannel, as it is a bad conductor of heat, prevents the sudden changes from affecting the body, and thus is a great preservative against cold.

Flannel is as necessary in the summer as in the winter time; indeed, we are more likely both to sit and to stand in draughts in the summer than in the winter; and thus we are more liable to become chilled and to catch cold.

Woolen shirts are now much worn; they are very comfortable and beneficial to health. Moreover, they simplify the dress, as they supersede the necessity of wearing either both flannel and linen, or flannel and calico shirts.

469. *Flannel sometimes produces great irritation of the skin: what ought to be done to prevent it?*

Have a moderately fine flannel, and persevere in its use; the skin in a few days will bear it comfortably. There is nothing equal to the old-fashioned Welsh flannel or Jaeger.

470. *After an attack of Rheumatic Fever, what extra clothing do you advise?*

In the case of a boy or a girl, just recovering from a severe attack of rheumatic fever, flannel next the skin ought always, winter and summer, to be worn—flannel drawers as well as a flannel vest.

471. *Have you any directions to give respecting the shoes and the stockings?*

The shoes for winter should be moderately thick and waterproof. If boys and girls be delicate, they ought to have double soles to their shoes, with the inner sole made of cork; this plan will make the sole of boots and shoes completely waterproof. In wet or dirty weather, india-rubber overshoes are useful, as they keep the *upper* as well as the *under* leather perfectly dry.

The socks, or stockings, for winter, ought to be either lamb's wool or worsted; it is absurd to wear *cotton* socks or stockings all the year round. I should advise a boy to wear socks, not stockings, as he will then be able to dispense with garters. If he wears stockings, suspenders should be used. Garters, as I have remarked in a previous Conversation, are injurious—they interfere with the circulation of the blood.

Boys and girls cannot be too particular in keeping their feet warm and dry. Cold wet feet are one of the most frequent exciting causes of bronchitis, of sore throats, and of consumption.

472. *Do you approve of girls wearing stays?*

Yes, provided that they are worn loose, and have shoulder straps. Custom has decreed that the heaviest part of a woman's dress shall be borne round the hips. Hence the tendency of the bowels to be pushed downwards. To lessen this tendency, it is necessary to have some artificial support from the shoulders. Braces have been recommended, but have not been adopted, maybe, from prejudice. Stays with shoulder straps, such as worn by children, give the proper support to the spine, whilst the shoulder straps relieve the hips somewhat of

the weight placed on them. Girls should *not wear* stays fastening in front, and having steel ribs to stiffen them.*

473. *Have you any remarks to make on female dress?*

A girl's dress should be well fitting but loose. Its style, and its color, and material, should be in accordance with the general conformation and complexion of the wearer, and her social position. First let the underlinen be perfect, then see to the outward covering of the head and body. A mother's taste, a mother's *status* in society, are more or less revealed by her manner of clothing her children. The severity of simplicity of style, the intrinsic value or suitableness of material, the subdued hues of colors, taken as a whole, stamp the wearer as the happy offspring of a *gentle*woman and a *gentle*man.

There is a perfect disregard of health in everything appertaining to fashion. Parts that ought to be kept warm remain unclothed; the *upper* portion of the chest, most prone to tubercles (consumption), is completely exposed; the feet, great inlets to cold, are covered with thin stockings, and with shoes as thin as paper. Parts that should have full play are cramped and hampered; the chest is cribbed in with stays, the feet with *tight* shoes—hence causing deformity, and preventing a free circulation of blood. The mind, that ought to be calm and unruffled, is kept in a constant state of excitement by balls, and concerts, and plays. Mind and body sympathize with each other, and disease is the consequence. Night is turned into day; and a delicate girl leaves the heated ball-room, decked out in her airy finery, to breathe the damp and cold air of night. She goes to bed, but, for the first few hours, she is too much

* Several years ago, while prosecuting my anatomical studies in London University College dissecting-rooms, on opening a young woman, I discovered an immense indentation of the liver large enough to admit a rolling-pin, produced by tight-lacing!

excited to sleep ; towards morning, when the air is pure and invigorating, and when to breathe it would be to inhale health and life, she falls into a feverish slumber, and wakes not until noonday. Oh, that a mother should be so blinded and so infatuated !

DIET.

474. *Which is the more wholesome, coffee or tea, where milk does not agree, for a youth's breakfast?*

Coffee, provided it be made properly, and provided the boy or the girl takes a great deal of outdoor exercise ; if a youth be much confined within doors, tea is preferable to coffee. The usual practice of making coffee is to boil it, to get out the strength ! But the fact is, the process of boiling boils the strength away ; it drives off that aromatic, grateful principle, so wholesome to the stomach, and so exhilarating to the spirits ; and, in lieu of which, extracts, its dregs and impurities, which are both heavy and difficult of digestion. The coffee ought, if practicable, to be *freshly* ground every morning, in order that you may be quite sure that it be perfectly genuine, and that none of the aroma of the coffee has flown off from long exposure to the atmosphere. If a youth's bowels be inclined to be costive, coffee is preferable to tea for breakfast, as coffee tends to keep the bowels regular. Fresh milk ought always to be added to the coffee in the proportion of half coffee and half new milk. If coffee does not agree, then tea should be substituted, which ought to be taken with plenty of fresh milk in it. Milk may be frequently given in tea, when it otherwise would disagree.

When a youth is delicate, it is an excellent plan to give him, every morning before he leaves his bed, a tumblerful of *new* milk. The draught of milk, of course, is not in any way to interfere with his regular breakfast.

Cocoa shells, properly boiled, form an excellent sub-

stitute for tea or coffee. If the shells be too bitter, good-prepared cocoa may be given, made with part milk and part water, and sweetened if necessary.

475. *Do you approve of a boy eating meat with his breakfast?*

This will depend upon the exercise he has. If he has had a good walk or run before breakfast, or if he intends, after breakfast, to take plenty of athletic out-door exercise, meat or a rasher or two of bacon may be eaten with advantage; but not otherwise. Fish is a good breakfast dish.

476. *What is the best dinner for a youth?*

Fresh mutton or beef, a variety of vegetables, and a farinaceous pudding. It is a bad practise to allow him to dine exclusively on a fruit pudding, or on any other pudding, or on pastry. Unless he be ill, he must, if he is to be healthy, strong, and courageous, eat meat every day of his life. "All courageous animals are carnivorous, and greater courage is to be expected in a people whose food is strong and hearty, than in the half-starved commonalty of other countries."—*Sir W. Temple.*

He should be desired to take plenty of time over his dinner, so that he may be able to chew his food well, and thus that it may be reduced to an impalpable mass, and be well mixed with the saliva—which the action of the jaws will cause to be secreted—before it passes into the stomach. If such were usually the case, the stomach would not have double duty to perform, and a boy would not so frequently lay the foundation of indigestion, etc., which may embitter, and even make miserable, his after life. Meat, plain pudding, vegetables, bread, and hunger for sauce (which exercise will readily give), is the best, and, indeed, should be, as a rule, the only dinner he should have. A youth ought not to dine later than two o'clock.

477. *Do you consider broths and soups wholesome?*

Yes. In moderate quantities. Fluids in large quantities too much dilute the gastric juice, and over-distend the stomach, and hence weaken it, and thus produce indigestion.

Let him be debarred from rich soups and from highly seasoned dishes, which only disorder the stomach. It is a mistake to give a boy or a girl broth or soup, in lieu of meat, for dinner. It may be well, occasionally, to give a youth, with his dinner, *in addition to his meat*, either good soup or good broth not highly seasoned, made of good *meat* stock.

478. *Do you approve of a boy drinking beer with his dinner?*

No, a boy requires nothing but water with his meals.

479. *Do you approve of a youth, more especially if he be weakly, having wine after dinner?*

I disapprove of it. His food should be quite nourishing enough. Wine or any stimulant should only be given under medical advice—

"Wine and youth are fire upon fire."—*Fielding.*

A parent ought on no account to allow a boy to touch spirits, however much diluted; they are, to the young, still more deadly in their effects than wine.

480. *Have you any objection to a youth drinking tea?*

Not at all, provided it be not made strong, and that it has plenty of milk in it. *Green* tea is apt to make people nervous, and boys and girls ought not even to know what it is to be nervous.

481. *Do you object to supper for a youth?*

Meat suppers are highly prejudicial. If he be hungry (and if he has been much in the open air, he is almost sure to be), a piece of bread and butter, with a draught of milk and some farinaceous food will form the best supper he can have. He ought not to sup later than eight o'clock.

482. *Do you approve of a boy having anything between meals?*

I do not; let him have four meals a day, and he will require nothing in the intervals. It is a mistaken notion that "little and often is best." The stomach requires rest as much as, or perhaps more than (for it is frequently sadly overworked), any other part of the body. I do not mean that he is to have "*much* and seldom:" moderation, in everything, is to be observed. Give him as much as a growing boy requires (*and that is a great deal*), but do not let him eat gluttonously, as many indulgent parents encourage their children to do. Intemperance in eating cannot be too strongly condemned.

483. *Have you any objection to a boy having pocket-money?*

It is a bad practise to allow a boy pocket-money; if he be so allowed, he will be loading his stomach with sweets, fruit, and pastry, and thus his stomach will become cloyed and disordered, and the keen appetite, so characteristic of youth, will be blunted, and ill health will ensue. "In a public education, boys early learn intemperance, and if the parents and friends would give them less money upon their usual visits, it would be much to their advantage, since it may justly be said that a great part of their disorders arise from surfeit, '*plus occidit gula quam gladius*' (gluttony kills more than the sword)."—*Goldsmith.*

How true is the saying that "many people dig their graves with their teeth." You may depend upon it that more die from stuffing than from starvation! There would be little for doctors to do if there were not so much stuffing and imbibing of strong drinks going on in the world!

AIR AND EXERCISE.

484. *Have you any remarks to make on fresh air and exercise for boys and girls?*

Girls and boys, especially the former, are too much confined within doors. It is imperatively necessary, if

you wish them to be strong and healthy, that they should have plenty of fresh air and exercise ; remember, I mean fresh air—country air, not the close air of a town. By exercise, I mean the free unrestrained use of their limbs. Girls, in this respect, are unfortunately worse off than boys, although they have similar muscles to develop, similar lungs that require fresh air, and similar nerves to be braced and strengthened. It is not considered ladylike to be natural—all their movements must be measured by rule and compass !

The reason why so many young girls of the present day are so sallow, under-sized, and ill-shaped, is for the want of air and exercise. After a time the want of air and exercise, by causing ill health, makes them slothful and indolent—it is a trouble for them to move from their chairs !

Respiration, digestion, and a proper action of the bowels, imperatively demand fresh air and exercise. Ill health will inevitably ensue if boys and girls are cooped up a great part of the day in a close room. A distinguished writer of the present day says :—"The children of the very poor are always out and about. In this respect they are an example to those careful mammas who keep their children, the whole day long, in their chairs, reading, writing, ciphering, drawing, practising music lessons, doing crochet work, or anything, in fact, except running about, in spite of the sunshine always peeping in and inviting them out of doors ; and who, in the due course of time, are surprised to find their children growing up with incurable heart, head, lung, or stomach complaints."

485. *What is the best exercise for a youth ?*

Walking or running : provided neither of them be carried to fatigue—the slightest approach to it should warn a youth to desist from carrying it further. Walking exercise is not sufficiently insisted upon. A boy or a girl, to be in the enjoyment of good health, ought to

walk at least six miles every day. I do not mean six miles at a stretch, but at different times of the day. Some young ladies think it an awfully long walk if they manage a couple of miles! How can they, with such exercise, expect to be well? How can their muscles be developed? How can their nerves be braced? How can their spines be strengthened and be straight? How can their blood course merrily through their blood-vessels? How can their chests expand and be strong? Why, it is impossible! Ill health must be the penalty of such indolence, for Nature will not be set at naught! Walking exercise, then, is the finest exercise that can be taken, and must be taken, and that without stint, if boys and girls are to be strong and well! The advantage of our climate is, that there is not a day in the whole year that walking exercise cannot be enjoyed. I use the term *enjoyed* advisedly. The roads may, of course, be dirty; but what of that? A good thick pair of boots will be the remedy.

Do, then, let me entreat you, insist upon your girls and boys taking plenty of exercise; let them almost live in the open air! Do not coddle them; this is a rough world of ours, and they must rough it; they must be knocked about a great deal, and the knocks will do them good. Poor youths who are, as it were, tied to their mothers' apron strings, are much to be pitied: they are usually puny, and delicate, and effeminate, and utterly deficient in self-reliance.

486. *Do you approve of horse or pony exercise for boys and girls?*

Most certainly I do; but still it ought not to supersede walking. Horse or pony exercise is very beneficial, and cannot be too strongly recommended. One great advantage for those living in towns, which it has over walking, is, that a person may go further into the country, and thus be enabled to breathe a purer and more healthy atmosphere. Again, it is a much more

amusing exercise than walking, and this, for the young, is a great consideration indeed.

Horse exercise is for both boys and girls a splendid exercise ; it improves the figure, it gives grace to the movements, it strengthens the chest, it braces the muscles, and gives to the character energy and courage.

Both boys and girls ought to be early taught to ride. There is nothing that gives more pleasure to the young than riding on a pony or on a horse, and for younger children, even on that despised, although useful animal, a donkey. Exercise taken with pleasure is doubly beneficial.

If girls were to ride more on horseback than they now do, we should hear less of crooked spines, and of round shoulders, of chlorosis, and of hysteria, and of other numerous diseases of that class, generally owing to debility and to mismanagement.

Those ladies who "affect the saddle" are usually much healthier, stronger, and straighter than those who either never, or but seldom, ride on horseback.

Riding on horseback is both an exercise and an amusement, and is peculiarly suitable for the fair sex, more especially as their modes of exercise are somewhat limited, ladies being excluded from following many games, such as base and football, both of which are practised, with such zest and benefit, by the rougher sex. Of recent years, however, both base and football have been attempted by the weaker sex. Though, perhaps, football is a little undignified, and is much more suited to the rougher nature of the male, yet it marks the growing desire on the part of females to take more exercise than was formerly fashionable, and is, on *that account,* a step in the right direction

487. *Do you approve of cycling for girls?*

Certainly. Tricycle and bicycle exercise is beneficial, the latter especially. A bicycle is to be preferred to a

tricycle, because the machine does not require so much exertion for its propulsion, and it is decidedly less dangerous if an accident occurs, indeed, danger may be the more readily and quickly avoided by jumping off the machine. Everything depends upon the saddle, its adjustment, the position of the pedals and of the handle bars. The carriage must be upright, not cramped, or spinal curvature will surely follow. Exercise must be taken *short of fatigue*. If the mounting of a hill causes but slightly more exertion to propel the bicycle than on the flat there is no objection to riding it, but if it requires great exertion it had better not be attempted. So with the distance accomplished. It is not so much a question of miles as skill and physical ability. What would prove exhausting to one girl, to another would simply mean ordinary exercise. The speed and the extent of the ride must depend upon the physical capabilities of the individual. Bicycling is particularly adapted to the requirements of weak and delicate girls, and should certainly be encouraged by a mother.

488. *My girl has Heart Disease: should she be allowed to cycle?*

That will entirely depend upon the nature of the heart disease; but it may be confidently stated that if the disease is mild, bicycling in moderation will be very beneficial. Fast riding, hill climbing and fatigue would be most injurious. A doctor should of course be consulted. After convalescence from fevers, the heart is likely to be left "weak"; the pastime therefore should not be indulged in until the doctor sanctions it.

489. *Do you approve of carriage exercise?*

There is but very little muscular exertion in carriage exercise; its principal advantage is, that it enables a person to have change of air, which may be purer than the one he is in the habit of breathing. But, whether it be so or not, change of air frequently does good, even if the air be not so pure. Carriage exercise, therefore, does only

partial good, and ought never to supersede either walking, or bicycling, or horse exercise.

490. *What is the best time of the day for the taking of exercise?*

In the summer time, early in the morning and before breakfast, as "cool morning air exhilarates young blood like wine." If a boy cannot take exercise upon an empty stomach, let him have a slice of bread and a draught of milk. When he returns home he will be able to do justice to his breakfast. In fine weather he cannot take too much exercise, provided it be not carried to fatigue.

491. *What is the best time for him to keep quiet?*

He ought not to take exercise immediately after—say for half an hour after—a hearty meal, or it will be likely to interfere with his digestion.

AMUSEMENTS.

492. *What amusements do you recommend for a boy as being most beneficial to health?*

Manly games—such as rowing, skating, cricket, quoits, football, rackets, baseball, fencing, bicycling, golf, hockey, boxing, swimming, tennis, polo the punching bag, and all gymnastic exercises. Such games bring the muscles into proper action, and thus cause them to be fully developed. They expand and strengthen the chest; they cause a due circulation of the blood, making it to bound merrily through the blood-vessels, and thus to diffuse health and happiness in its course.

Another excellent amusement for boys is the Indian club exercise. The manner of handling them is so graphically described by Addison that I cannot do better than transcribe it:—"When I was some years younger than I am at present, I used to employ myself in a more laborious diversion, which I learned from a Latin treatise of exercises that is written with great erudition; it is there called the σκιομαχια, or the fighting with a man's

own shadow, and consists in the brandishing of two short sticks grasped in each hand, and loaded with plugs of lead at either end. This opens the chest, exercises the limbs, and gives a man all the pleasure of boxing without the blows. I could wish that several learned men would lay out that time which they employ in controversies and disputes about nothing, in this method of fighting with their own shadows. It might conduce very much to evaporate the spleen which makes them uneasy to the public as well as to themselves."

Another capital, healthful game is fencing, which makes a boy "to gain an upright and elastic carriage, and to learn the use of his limbs."—*H. Kingsley.* Do everything to make a boy strong. Remember, "the glory of young men is their strength."

If games were more patronized in youth, so many miserable, nervous, useless creatures would not abound.

First of all, by an abundance of exercise and fresh air, make your boys and girls strong, and then, in due time, they will be ready and be able to have their minds properly cultivated.

One great advantage of gymnastic exercise is, it makes the chest expand, it fills the lungs with air, and by doing so strengthens them amazingly, and wards off many diseases. The lungs are not sufficiently exercised and expanded; boys and girls, girls especially, do not as a rule half fill their lungs with air; now air to the lungs is food to the lungs, and portions of the lungs have not half their proper food, and in consequence suffer.

It is very desirable that every boy and girl should, every day of his or her life, and for a quarter of an hour at least each time, go through a regular *breathing exercise*—that is to say, should be made to stand upright, throw back the shoulders, and the while alternately and regularly fully fill and fully empty the lungs

of air. If this plan were daily followed, the chest and lungs would be wonderfully invigorated, and the whole body benefited.

493. *Is playing the flute, blowing the bugle, or any other wind instrument, injurious to health?*

Decidedly so: the lungs and the windpipe are brought into unnatural action by them. If a boy be of a consumptive habit, this will, of course, hold good with tenfold force. If a youth must be musical, let him be taught singing, as that, provided the lungs be not diseased, will be beneficial.

494. *What amusements do you recommend for a girl?*

Archery, skipping, horse exercise, croquet, tennis, rowing, punting, fencing, swimming, bicycling, golf, skating, and dancing are among the best. Archery expands the chest, throws back the shoulders, thus improving the figure, and develops the muscles. Skipping is exceedingly good exercise for a girl, every part of the body being put into action by it. Horse exercise is splendid for a girl; it improves the figure amazingly—it is most exhilarating and amusing; moreover, it gives her courage and makes her self-reliant. Croquet develops and improves the muscles of the arms, beautifies the complexion, strengthens the back, and throws out the chest. Croquet is for girls and women what baseball is for boys and men—a glorious game. Croquet has improved both the health and the happiness of womankind. Croquet, in the bright sunshine, with the winds of heaven blowing about the players, is not like a ball in a stifling hot ball-room, with gaslights poisoning the air. Croquet brings the intellect as well as the muscles into play. Tennis quickens the eye and hand marvellously, and provides an amount of sharp exercise which is necessary for the stimulation of a torpid liver. Rowing improves and expands the chest and develops the muscles of the back, chest, and arms. Punting, too, is a glorious exercise—all parts of the

body are at work. The chest is filled with draughts of fresh, pure air, the carriage of the body is improved, the eye and the brain are trained, and the healthy life-blood coursing through the blood-vessels makes the cheeks like rosebuds. What a charming sight to see a healthy, graceful girl engaged in punting on the river on a summer's day! Fencing should not be neglected. It educates the eye, makes a girl more self-reliant, beautifies the figure, and improves the carriage. Cycling strengthens the constitution, improves the muscles, educates the hand, eye, and brain, teaches self-reliance, and quickly banishes "nerves." Golf not only compels walking exercise, but provides a wholesome inducement for taking a walk. The muscles of the body are exercised in the fresh air, and the eye and brain are trained at the same time. Skating is for a girl excellent exercise and is as exhilarating as a glass of champagne, but will do her far more good! Skating improves the figure and makes a girl balance and carry herself upright and well; it is a most becoming exercise for her, and is much in every way to be commended. Moreover, skating gives a girl courage and self-reliance. Dancing, followed as a rational amusement, causes a free circulation of the blood, and, provided it does not induce her to sit up late at night, is most beneficial.

495. *If dancing be so beneficial, why are balls such fruitful sources of coughs, of colds, and consumption?*

On many accounts. They induce young ladies to sit up late at night; they cause them to dress more lightly than they are accustomed to do; and thus thinly clad, they leave their homes while the weather is, perhaps, piercingly cold, to plunge into a suffocating, hot ball-room, made doubly injurious by the immense number of lights, which consume the oxygen intended for the due performance of the healthy functions of the lungs. Their partners, the brilliancy of the scene, and the music, excite their nerves to undue, and thus to un-

natural, action. What are the consequences? Fatigue, weakness, hysterics, and extreme depression. They leave the heated ball-room, when the morning has far advanced, to breathe the bitterly cold and frequently damp air of a winter's night, and what is the result? Hundreds die of consumption, who might otherwise have lived. Ought there not, then, to be a distinction between a ball at midnight and a dance in the evening?

496. *But still, would you have a girl brought up to forego the pleasures of a ball?*

If a parent prefer her so-called pleasures to her health, certainly not; to such a mother I do not address myself.

497. *Have you any remarks to make on singing, or on reading aloud?*

Before a mother allows her daughter to take lessons in singing, she should ascertain that there be no actual disease of the lungs, for if there be, it will probably excite it into action; but if no disease exist, singing or reading aloud is very conducive to health. Public singers are seldom known to die of consumption. Singing expands the chest, improves the pronunciation, enriches the voice for conversation, strengthens the lungs, and wards off many of their diseases.

EDUCATION.

498. *Do you approve of corporal punishment in school?*

I do not. I consider it to be decidedly injurious both to body and mind. Is it not painful to witness the pale cheeks and the dejected looks of those boys who are often flogged? If their tempers are mild, their spirits are broken; if their dispositions are at all obstinate, they become hardened and wilful, and are made little better than brutes.* Corporal punishment

* "I would have given him, Captain Fleming, had he been

is revolting, disgusting, and demoralizing to the boy; and is degrading to the schoolmaster as a man and as a Christian.

"I am confident that no boy," says Addison, "who will not be allured by letters without blows, will never be brought to anything with them. A great or good mind must necessarily be the worse for such indignities; and it is a sad change to lose of its virtue for the improvement of its knowledge."

With equal truth it may be said that, without a single exception, flogging makes a good boy bad, and a bad boy worse.

Dr. Arnold of Rugby, one of the best schoolmasters that England ever produced, seldom caned a boy—not more than once or twice during the half year; but when he did cane him, he charged for the use of the cane each time in the bill, in order that the parents might know how many times their son had been punished. The worthy doctor treated the boys as gentlemen, and trusted much to their honor.

If caning be ever necessary, which it might occasionally be, for the telling of lies, for instance, or for gross immorality, let the head master himself be the only one to perform the operation, but let him not be allowed to delegate it to others. A law ought in all public schools to be in force to this effect.

Never should a schoolmaster, or any one else, be allowed, *on any pretense whatever*, to strike a boy upon his head. Boxing of the ears has sometimes caused laceration of the drum of the ear, and consequent partial deafness for life. Boxing of the ears injures the brain, and therefore the intellect.

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my son," quoth old Pearson the elder, "such a good sound drubbing as he never would have forgotten—never."

"Pooh! pooh! my good sir. Don't tell me. Never saw flogging in the navy do good. Kept down brutes; never made a man yet."—*Dr. Norman Macleod in "Good Words."*

It might be said that I am traveling out of my province in making remarks on corporal chastisement in schools. My office is to inform you of everything that is detrimental to your children's health and happiness; and corporal punishment is assuredly most injurious both to their health and happiness.

499. *Have you any observations to make on the selection of a female boarding-school?*

Home education, where it be practicable, is far preferable to sending a girl to school; as *at* home her health, her morals, and her household duties can be attended to much more effectually than *from* home.

If home education be not practicable, great care must be taken in making choice of a school. You ought, in the education of your daughters, to remember that they, in a few years, will be the wives and the mothers of America; and, if they have not health and strength, and a proper knowledge of household duties to sustain their characters, what useless, listless wives and mothers they will make!

Remember, then, the body, and not the mind, ought, in early life, to be principally cultivated and strengthened, and that the growing brain will not bear, with impunity, much book learning.

From her twelfth to her seventeenth year is the most important epoch of a girl's existence, as regards her future health, and consequently, in a great measure, her future happiness; and one, in which, more than at any other period of her life, she requires a plentiful supply of fresh air, exercise, recreation, a variety of innocent amusements, and an abundance of good nourishment—more especially of fresh meat. If therefore you have determined on sending your girl to school, you must ascertain that the pupils have as much plain, wholesome nourishing food as they can eat,* that the

* If a girl have an *abundance* of good nourishment, the

school be situated in a healthy spot, that it be well drained, that there be a large play-ground attached to it, that the young people are allowed plenty of exercise in the open air—indeed, that at least one-third of the day is spent there in croquet, skipping, archery, battledore and shuttlecock, gardening, walking, running, etc.

Take care that the schoolrooms are well ventilated, that they are not overcrowded, and that the pupils are allowed chairs to sit upon, and not forms and stools.

Assure yourself that the pupils are compelled to rise early in the morning, and that they retire early to rest; that each young lady has a separate bed;* and that many are not allowed to sleep in the same room, and that the apartments are large and well ventilated. In fine, their health and their morals ought to be preferred far above all their accomplishments.

500. *Do you approve of straight-backed chairs to make a girl sit upright and to give strength to her spine?*

Certainly not: the natural and the graceful curve of the back is not the curve of a straight-backed chair. Straight-backed chairs are more likely to make a girl crooked than to make her straight. I do not approve of a girl lounging and lolling on a sofa; but if she be tired and wants to rest herself, let her, like any other reasonable being, sit upon a comfortable ordinary chair.

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schoolmistress must, of course, be remunerated for the necessary and costly expense; and how can this be done on the paltry sum charged at *cheap* boarding schools? It is utterly impossible. And what are we to expect from poor and insufficient nourishment to a fast-growing girl, and at the time of life, remember, when she requires an *extra* quantity of good sustaining, supporting food? A poor girl, from such treatment, becomes either consumptive or broken down in constitution, a condition from which she never recovers, but drags out a miserable existence.

* A horse-hair mattress should always be preferred to a feather bed. It is not only better for the health, but it improves the figure.

If you want her to be straight, let her be made strong; and if she is to be strong, she must have plenty of exercise and exertion, such as drilling, dancing, skipping, bicycling, golf, tennis, rowing, archery, croquet, horse exercise, swimming, bowls, etc. This is the plan to make her back straight and her muscles strong.

HOUSEHOLD WORK FOR GIRLS.

501. *Do you recommend household work as a means of health for my daughter?*

Decidedly. Whatever you do, do not make a fine lady of her, or she will become puny and delicate, listless and miserable. A girl, let her station be what it may, ought, as soon as she be old enough, to make her own bed. There is no better exercise to expand the figure and to beautify the shape than is bed-making. Let her make tidy her own room. Let her use her hands and her arms. Let her, to a great extent, be self-reliant, and let her wait upon herself. There is nothing vulgar in her being useful. Teach her, as she advances in age, the value of time, the value of money, the value of the different articles of daily consumption, the responsibility of whatever position she occupies, and lastly, if she would wish to command others, that she must herself first learn to obey.

CHOICE OF PROFESSION OR TRADE.

502. *What profession or trade would you recommend a boy of a delicate or of a consumptive habit to follow?*

If a youth be delicate, it is a common practise among parents either to put him to some light indoor trade, or, if they can afford it, to one of the learned professions. Such a practise is absurd, and fraught with danger. The close confinement of an indoor trade is highly prejudicial to health. The hard reading requisite to fit a man to fill, for instance, the sacred office, only increases delicacy of constitution. The stooping at a desk, in an attorney's office, is most trying to the chest. The

harass, the anxiety, the disturbed nights, the interrupted meals, and the intense study necessary to fit a man for the medical profession, is still more dangerous to health than either law, divinity, or any indoor trade.

If a boy, therefore, be of a delicate or of a consumptive habit, an outdoor calling should be advised, such as that of a farmer, of a tanner, or a land surveyor; but, if he be of an inferior station of society, the trade of a butcher may be recommended. Tanners and butchers are seldom known to die of consumption.

I cannot refrain from reprobating the too common practise among parents of bringing up their boys to the profession. "I very much wonder," says Addison, "at the humor of parents, who will not rather choose to place their sons in a way of life where an honest industry cannot but thrive, than in stations where the greatest probity, learning, and good sense may miscarry. How many men are country curates, that might have made themselves aldermen of London by a right improvement of a smaller sum of money than what is usually laid out upon a learned education? A sober, frugal person, of slender parts and a slow apprehension, might have thrived in trade, though he starves upon physic; as a man would be well enough pleased to buy silks of one whom he could not venture to feel his pulse. Vagellius is careful, studious, and obliging, but, withal, a little thick-skulled; he has not a single client, but might have had abundance of customers. *The misfortune is that parents take a liking to a particular profession, and therefore desire their sons may be of it; whereas, in so great an affair of life, they should consider the genius and abilities of their children more than their own inclinations.* It is the great advantage of a trading nation that there are very few in it so dull and heavy, who may not be placed in stations of life which may give them an opportunity of making their fortunes. A well-regulated commerce, is not, like law, medicine, or

divinity, to be overstocked with hands; but, on the contrary, flourishes by multitudes, and gives employment to all its professors. Fleets of merchantmen are so many squadrons of floating shops, that vend our wares and manufactures in all the markets of the world, and find out merchants under both the tropics."

SLEEP.

503. *Have you any remarks to make on the sleep of boys and girls?*

Sleeping-rooms are, generally, the smallest in the house, whereas, for health's sake, they ought to be the largest. During the night, let the window-sash, to the extent of about two or three inches, be left open.

If there be a dressing-room next to the bedroom, it will be well to have the dressing-room window, instead of the bedroom window open at night. The dressing-room door will regulate the quantity of air to be admitted into the bedroom, opening it either little or much, as the weather be cold or otherwise.

Fresh air during sleep is indispensable to health.—If a bedroom be close, the sleep, instead of being calm and refreshing, is broken and disturbed; and the boy, when he awakes in the morning, feels more fatigued than when he retired to rest.

If sleep is to be refreshing, the air, then, must be pure and free from carbonic acid gas, which is constantly being evolved from the lungs. If sleep is to be health-giving, the lungs ought to have their proper food—oxygen, and not to be cheated by giving them instead, a poison—carbonic acid gas.

It would be well for each boy to have a separate room to himself, and each girl a separate room to herself. If two boys are obliged, from the smallness of the house, to sleep in one room, and if two girls, from the same cause, are compelled to occupy the same chamber, by all means let each one have a *separate* bed to himself or

to herself, as it is so much more healthy and expedient for both boy and girl to sleep alone.

The roof of the bed should be left open—that is to say, the top of the bedstead ought not to be covered with bed furniture, but should be open to the ceiling, in order to encourage a free ventilation of air. A bed curtain may be allowed on the side of the bed where there are windy currents of air; otherwise, bed-curtains and draperies ought on no account to be allowed. They prevent a free circulation of the air. A youth should sleep on a horse-hair mattress. Such mattresses greatly improve the figure, and strengthen the frame. During the daytime, provided it does not rain, the windows must be thrown wide open, and directly after he has risen from bed the clothes ought to be thrown entirely back, in order that they may become, before the bed be made, well ventilated and purified by the air—

"Do you wish to be healthy?—
Then keep the house sweet;
As soon as you're up
Shake each blanket and sheet.

Leave the beds to get fresh.
On the close-crowded floor
Let the wind sweep right through—
Open window and door.

The bad air will rush out
As the good air comes in,
Just as goodness is stronger
And better than sin.

Do this, it's soon done,
In the fresh morning air,
It will lighten your labor
And lessen your care.

You are weary—no wonder,
There's weight and there's gloom
Hanging heavily round
In each over-full room.

Be sure all the trouble
  Is profit and gain,
For there's headache and heartache,
  And fever and pain

Hovering round, settling down
  In the closeness and heat;
Let the wind sweep right through
  Till the air's fresh and sweet.

And more cheerful you'll feel
  Through the toil of the day;
More refreshed you'll awake
  When the night's passed away."*

Plants and flowers ought not to be allowed to remain in a chamber at night. Experiments have proved that plants and flowers take up, in the daytime, carbonic acid gas (the refuse of respiration), and give off oxygen (a gas so necessary and beneficial to health), but give out in the night a poisonous exhalation.

Early rising cannot be too strongly insisted upon; nothing is more conducive to health, and thus to long life. A youth is frequently allowed to spend the early part of the morning in bed, breathing the impure atmosphere of a bedroom, when he should be up and about, inhaling the balmy and health-giving breezes of the morning—

"Rise with the lark, and with the lark to bed.
The breath of night's destructive to the hue
Of ev'ry flower that blows. Go to the field,
And ask the humble daisy why it sleeps
Soon as the sun departs? Why close the eyes
Of blossoms infinite long ere the moon
Her Oriental veil puts off? Think why,
Nor let the sweetest blossom Nature boasts
Be thus exposed to night's unkindly damp.
Well may it droop' and all its freshness lose,

"*Household Verses on Health and Happiness.* London: Jarrold & Sons. Every mother should read these *Verses.*

Compelled to taste the rank and pois'nous steam
Of midnight theater and morning ball.
Give to repose the solemn hour she claims ;
And from the forehead of the morning steal
The sweet occasion. Oh ! there is a charm
Which morning has, that gives the brow of age
A smack of youth, and makes the lip of youth
Shed perfume exquisite. Expect it not
Ye who till noon upon a down-bed lie,
Indulging feverish sleep."—*Hurdis.*

If early rising be commenced in childhood it becomes a habit, and will then probably be continued through life. A boy ought on no account to be roused from his sleep ; but, as soon as he be awake in the morning, he should be encouraged to rise. Dozing—that state between sleeping and waking—is injurious ; it enervates both body and mind, and is as detrimental to health as liquor drinking ! But if he rise early he must go to bed betimes ; it is a bad practise to keep him up until the family retire to rest. He ought, winter and summer, to seek his pillow by nine o'clock, and should rise as soon as he is awake in the morning.

Let me urge upon a parent the great importance of *not* allowing the chimney of any bedroom, or of any room in the house, to be stopped, as many are in the habit of doing to prevent, as *they* call it, a draught, but to prevent, as *I* should call it, health.

504. *How many hours of sleep ought a boy to have?*

This, of course, will depend upon the exercise he takes ; but, on an average, he should have every night at least eight hours. It is a mistaken notion that a boy does *better* with *little* sleep. Infants, children, and youths require more than those who are further advanced in years ; hence old people can frequently do with little sleep. This may in a measure be accounted for from the quantity of exercise the young take. Another reason may be, the young have neither racking pain, nor hidden sorrow, nor anxious care, to keep them awake ;

while, on the contrary, the old have frequently the one, the other, or all—

"Care keeps his watch on every old man's eye,
And where care lodges, sleep will never lie."—*Shakspeare.*

ON THE TEETH AND THE GUMS.

505. *What are the best means of keeping the teeth and the gums in a healthy state?*

I would recommend the teeth and the gums to be well brushed with warm salt and water, in the proportion of one large teaspoonful of salt to a tumbler of water. I was induced to try the above plan by the recommendation of an American writer—*Todd.* The salt and water should be used *every night.*

The following is an excellent tooth-powder :—

Take of—Fine-powdered Peruvian Bark ;
,, Prepared Coral ;
,, Prepared Chalk ;
,, Myrrh, of each half an ounce ;
,, Orris root, a quarter of an ounce.

Mix them well together in a mortar, and preserve the powder in a wide-mouthed stoppered bottle.

The teeth ought to be well brushed with the above tooth-powder every morning.

If the teeth be much decayed, and if, in consequence, the breath be offensive, two ounces of finely-powdered charcoal well mixed with the above ingredients will be found a valuable addition, but no time should be lost in seeking the assistance of a skilful dentist. A child cannot be healthy with decayed teeth in the mouth. The digestion is disordered, the health suffers in consequence, and tubercle germs may find their way into the glands of the neck. Some people clean their teeth every morning with soap ; if soap be used it ought to be Castile soap ; and if the teeth be not white and clean, Castile soap is an excellent cleanser of the teeth, and may be used in lieu of the tooth-powder as before recommended.

There are few persons who brush their teeth properly. I will tell you the right way. First of all procure a tooth-brush of the best make, and of rather hard bristles, to enable it to penetrate into all the nooks and corners of the teeth; then, having put a small quantity of warm water into your mouth, letting the principal of it escape into the basin, dip your brush into warm water, and if you are about using Castile soap, rub the brush on a cake of the soap, and then well brush your teeth, first upwards, and then downwards, then from side to side—from right to left, and from left to right—then the backs of the teeth, then apply the brush to the tops of the crowns of the teeth both of the upper and of the lower jaw—so that *every* part of each tooth, including the gums, may in turn be well cleansed and be well brushed. Be not afraid of using the brush; a good brushing and dressing will do the teeth and the gums an immensity of good; it will make the breath sweet, and will preserve the teeth sound and good. After using the brush the mouth must, of course, be well rinsed out with warm water.

The finest set of teeth I ever saw in my life belonged to a middle-aged gentleman; the teeth had neither spot nor blemish, they were like beautiful pearls. He never had toothache in his life, and did not know what toothache meant! He brushed his teeth every morning with soap and water, in the manner I have previously recommended I can only say to you—go and do likewise!

Camphor ought never to be used as an ingredient of tooth-powder, it makes the teeth brittle. Camphor certainly has the effect of making the teeth, for a time, look very white; but it is an evanescent beauty.

Tartar is apt to accumulate between and around the teeth; it is better in such a case *not* to remove it by scaling instruments, but to adopt the plan recommended by Dr. Richardson, namely, to well brush the teeth with pure vinegar and water. Be particular to take your

children to a dentist at least twice a year. Good teeth conduce to old age.

PREVENTION OF DISEASE, ETC.

506. *If a boy or a girl show great precocity of intellect, is any organ likely to become affected?*

A greater quantity of arterial blood is sent to the brain of those who are prematurely talented, and hence it becomes more than ordinarily developed. Such advantages are not unmixed with danger; this same arterial blood may excite convulsions, or insanity, or, at last, idiocy may follow. Precocious children not unfrequently succumb to tuberculosis. How proud a mother is in having a precocious child! How little is she aware that precocity is frequently an indication of disease!

507. *How can danger in such a case be warded off?*

It behoves a parent, if her son be precocious, to restrain him—to send him to a quiet country place, free from the excitement of the town; and when he is sent to school, to give directions to the master that he is not on any account to tax his intellect (for a master is apt, if he have a clever boy, to urge him forward); and to keep him from those institutions where a spirit of rivalry is maintained, and where the brain is thus kept in a state of constant excitement. Medals and prizes are well enough for those who have moderate abilities, but dangerous, indeed, to those who have brilliant ones.

An overworked precocious brain is apt to cause the death of the owner; and if it does not do so, it in too many instances injures the brain irreparably, and the possessor of such an organ, from being one of the most intellectual of children becomes one of the most commonplace of men.

508. *Are precocious boys in their general health usually strong or delicate?*

Delicate. Nature seems to have given a delicate body to compensate for the advantages of a talented mind.

A precocious youth is predisposed to consumption, more so than to any other disease. The hard study which he frequently undergoes excites the disease into action. It is not desirable, therefore, to have a precocious child.

509. *What is Scrofula?*

Scrofula is a special form of constitutional weakness encouraging the growth of tubercles in the tissues of the body. The tubercle germs (tubercle bacilli), on reaching a suitable soil, grow and multiply. The tissues are irritated by their presence, and new material of inflammatory formation is produced, which supplants existing structures. The fresh production is the tubercle. The life of the tubercle is short, it soon degenerates, and dies when the mischief is accomplished. If the tissues are healthy, the tubercle germs are quickly gobbled up by the living cells, if not, the tubercle germs gain the mastery. The glands, the skin, the joints, the bones, the brain, and certain of the organs are the parts which become scrofulous.

510. *What are the symptoms of Scrofula?*

The symptoms will depend upon the parts of the body singled out for attack. The glands in the neck are very frequently involved—they enlarge. The enlargement does not tend to disappear, but the glands increase in size. Next, the overlying skin becomes livid, then ulcerates, and material looking like matter escapes. The edges of the skin round the orifice thus formed are undermined, and more or less matter constantly discharges. Should healing take place, puckered scars are seen, with tags of skin hanging from them. Such scars tell their own tale. Sometimes abscesses arise in the skin, unconnected with underlying glands, which, when they burst, form livid sores with undermined edges. I have told you in previous Conversations that it is important to treat "breakings-out." The tubercle germs may find their way into the glands by the sore places in the skin, which occur in "breakings-out." They may

also gain an entrance from inflamed tonsils, adenoid vegetations, diseased teeth, and chronic ear discharges. The glands about the lungs may become tubercular, and then invade the lung tissue, producing the complaint known as phthisis, or consumption. Chronic catarrh of the bowels may readily lead to the invasion of the glands in the abdomen, with or without concurrent disease of the bowels themselves. In this way tubercular peritonitis is produced. The glands in the armpits, the groins, and the hams may also become tubercular.

If the joints are attacked, such as the wrist, the knee, or the ankle, they lose their beautiful contour, and become swollen, pale, and painful. This affection has been called white swelling. The joints may ulcerate, and unhealthy looking sores form upon them. The bones are also attacked and destroyed by this disease. Often the bone near the joint is invaded, and the joint itself is involved afterwards. When the bones of the fingers are attacked, they become greatly enlarged and distorted. The diseased bones enlarge, the skin becomes bound down to them, then ulcerates, and finally matter and dead bone come away from the opening. If the bones of the spine are attacked, the destruction causes the upper part to fall forwards, and an abrupt angular curvature is noticed in the back—the patient becomes humpbacked, and abscesses may form. Occasionally the first symptom is a lateral bending of the spine. The organs of the body may also become tubercular (scrofulous), thus the kidneys, the bladder, and so on.

511. *Are there not certain habits of body which predispose to Scrofula?*

If a child be descended from tubercular parents, he is more liable to the disease than those who are not so descended. If the parents suffer from constitutional disease, if they be either too old, or too young, the off-

spring are likely to suffer. *Any* child, whose health is lowered from disease or neglect, may develop scrofula, if it should be unfortunate enough to fall foul of tubercle bacilli, either by breathing them, or by taking them into the body with the food, *e. g.*, diseased meat and contaminated milk, or by inoculation of tubercular matter. Certain types of children are thought to be particularly susceptible to tubercle germs. These are the tall, slight, brightly intelligent children, with small limbs, clear delicate complexion, fine silky hair, and long eyelashes, and the short thick-set child, of dull aspect, with coarse skin and thick features.

512. *What can be done to prevent the disease?*

Cure all "breakings-out" as quickly as possible, remove adenoid vegetations and enlarged tonsils, pay attention to chronic ear discharges, and never allow decayed teeth to encumber the mouth. Chronic indigestion must be cured. Bowels suffering from catarrh are very prone to be attacked. Rickets means bronchitis, bronchitis means a swollen mucous membrane and irritated and weakened bronchial glands, tissues waiting to receive the tubercle bacilli with open arms. Ill health leads to lowered vitality, lowered vitality to tubercular infection. A mother should rather employ the doctor to keep her child in good health, than call him in to cure the child when he is diseased. Children should not be allowed to associate with consumptive patients, and with those suffering from other tubercular troubles. Disaster is sure to follow. The New York Board of Health have wisely placed consumption on their schedule as a notifiable disease. The expectoration of phthisical patients is swarming with tubercle germs. The sufferer expectorates on the pavements, the matter dries, and soon becomes an impalpable dust, and the next breath of air sends it adrift on its errand of destruction. If in its travels it meets with a suitable soil, it grows, and its growth means maiming for life,

perhaps death. The matter, in its liquid state, may be inoculated in the skin—a slight scratch, perhaps, which readily escapes notice—and the germs are started on their travels. Perhaps they produce lupus, perhaps skin abscesses, perhaps tubercular glands, perhaps—but what need to expatiate? They are not desirable parasites, wherever located. So, too, the matter from discharges from tubercular glands in the neck, or from diseased bones, is ripe for mischief, if given the slightest encouragement. About one quarter of the deaths occurring at the Evelina Hospital for Children during the year are due to tubercular complaints! What a frightful death-roll for a solitary disease! Is it not high time that something was done to try and stamp out such a plague? Tubercle germs may find their way into the system by milk, therefore sterilize your milk; and by meat, therefore thoroughly cook your meat, be it flesh or fowl, in case, by chance, it be diseased.

513. *At what period of life does Scrofula develop?*

No period of life is exempt. Scrofulous disorders are met with in infants at the breast, and they may even become scrofulous in the womb. It is, however, not common in the first year of life, but afterwards it becomes so. After middle life it is uncommon.

514. *How may the effects of Scrofula be mitigated?*

By strict attention to the rules of health. Books, unless as an amusement, ought to be discarded. The patient must almost live in the open air, and his residence should be a healthy country place, where the air is dry and bracing; if it be at a farmhouse, in a salubrious neighborhood, so much the better. Early rising in such a case is most beneficial. Wine, spirits, and all fermented liquors ought to be avoided. Beefsteaks and mutton-chops in abundance, and plenty of milk and of farinaceous food, such as rice, sago, arrowroot, etc., should be his diet.

Scrofula, if the above rules be strictly and persever-

ingly followed, may be warded off; but there must be no half measures, no trying to serve two masters—to cultivate at the same time the health and the intellect. The brain, until the body becomes strong, must *not* be taxed. "You may prevent scrofula by care; but that some children are originally predisposed to the disease there cannot be the least doubt, and in such cases the education and the habits of youth should be so directed as to ward off a complaint, the effects of which are so frequently fatal."—*Sir Astley Cooper on Scrofula.*

515. *But suppose the disease to be already formed, what must then be done?*

The plan recommended above must still be pursued, not by fits and starts, but steadily and continuously, for it is a complaint that requires a vast deal of patience and great perseverance. Warm and cold sea-bathing in such a case are generally most beneficial. In a patient with scrofula it will, of course, be necessary to consult a skilful and experienced doctor. The treatment to be adopted will depend upon the organ or part of the body which is attacked. It may in some instances be necessary to perform a surgical operation to cure the diseased parts. There is always some risk that the disease will become distributed about the body generally, when the child will succumb to the disorder, perhaps with symptoms of implication of the brain.

But do not despair; many scrofulous patients are cured by time and by judicious treatment.

516. *Have you any remarks to make on a girl stooping?*

A girl ought never to be allowed to stoop; stooping spoils the figure, weakens the chest, and interferes with the digestion. If she cannot help stooping, you may depend upon it that she is in bad health, and that a medical man ought to be consulted. As soon as her health is improved, the dancing-master should be put in requisition, and calisthenic and gymnastic exercises

should be resorted to. Horse exercise and swimming, in such a case, are very beneficial. The girl should live well, on good nourishing diet, and not be too closely confined either to the house or to her lessons. She ought during the night to lie on a horse-hair mattress, and during the day, for two or three hours, flat on her back on a reclining board. Stooping, if neglected, is very likely to lead to some lung disease.

517. *If a boy be round-shouldered and slouching in his gait, what ought to be done?*

Let him be drilled; there is nothing more likely to benefit him than drilling. You never see a soldier round-shouldered or slouching in his gait. He walks every inch like a man. Look at the difference in appearance between a country bumpkin and a soldier! It is the drilling that makes the difference: "Oh, for a drill-sergeant to teach them to stand upright, and to turn out their toes, and to get rid of that slouching, hulking gait, which gives such a look of clumsiness and stupidity!"

518. *Is a slight spitting of blood to be looked upon as a dangerous symptom?*

Spitting of blood is always to be looked upon with suspicion; even when a youth appears, in other respects, to be in good health, it is frequently the forerunner of consumption. It might be said that, by mentioning the fact, I am unnecessarily alarming a parent, but it would be a false kindness if I did not do so:—

"I must be cruel, only to be kind."—*Shakspeare.*

If a mother had been more generally aware that spitting of blood was frequently the forerunner of consumption, she would, in the management of her offspring, have taken greater precautions; she would have made everything give way to the preservation of their health; and, in many instances, she would have been amply repaid by having the lives of her children spared to her.

We frequently hear of patients, in *confirmed* consumption, being sent to Mentone, to Madeira, and to other foreign parts. Can anything be more cruel or absurd? If there be any disease that requires the comforts of home and good nursing more than another, it is consumption.

519. *At what age does Consumption occur?*

No period of life is exempt, even infants under one year old may suffer.

520. *What are the symptoms of this disease?*

Some of the most important symptoms of pulmonary consumption are indicated by the stethoscope; but, as I am addressing a mother, it would, of course, be quite out of place to treat of such signs in Conversations of this kind. The symptoms it might be well for a parent to recognize, in order that she may seek aid early, I will presently describe. It is perfectly hopeless to expect to cure consumption unless advice be sought at the *onset*, as the only effectual good in this disease is to be done *at first*. The symptoms depend upon the age of the child. In children up to six or seven years of age the child may be thought to be suffering from severe bronchitis or inflammation of the lungs, which finally proves to be of a tubercular nature. Sometimes simple lung troubles in whooping-cough are very chronic and intractable. The child wastes, suffers from fever and sweats, and is thought to be consumptive on that account; when a change for the better occurs the lungs "heal" and the health is gradually restored. Often, however, these symptoms denote that the child is stricken with tubercle, and if diarrhea, anemia, swollen hands and feet, together with attacks of blueness of the face, make their appearance, the outlook is not reassuring. In young children wasting, remittent fever, sweats and cough, with often very indefinite lung troubles, denote consumption. Such children require the most careful watching, and it is only after several skilled

examinations of the chest that a correct conclusion can be formed. *Frequently* such symptoms are owing to a simple collection of matter in the chest, when a timely discovery and appropriate treatment will restore the child to health and strength. Blood spitting is *very* uncommon, but it may occur, and indeed be profuse enough to cause death. In older children there is cough, wasting, loss of appetite, diarrhea, and intermittent fever with sweats. Children with slight implication of the lungs with these symptoms may improve and recover, but the contrary may occur; the lung disease advances, weakness increases, wasting becomes extreme, bed sores form, the feet and ankles swell, and they die exhausted. Often they are carried off by tubercular inflammation of the brain, or by associated tubercular bowel troubles. Blood spitting is not common, and the glottis is very rarely attacked. The duration is usually from four to six months. The disease may become chronic, and last for some years. In such a case there is no fever, the child appears to be in fair condition, but is short of breath on exertion. His finger tips are bulbous. From the twelfth year and onwards the disease is like that seen in adults. One of the earliest symptoms of this dreadful scourge is a slight, dry, short cough, attended with tickling and irritation at the top of the throat. This cough generally occurs in the morning; but, after some time, comes on at night, and gradually throughout the day and the night. Frequently during the early stage of the disease *a slight spitting of blood occurs*. Now, this is a most dangerous symptom; indeed, I may go so far as to say that, as a rule, it is almost a sure sign that the patient is in the *first* stage of a consumption.

There is usually hoarseness, not constant, but coming on if the patient be tired, or towards the evening; there is also a sense of lassitude and depression, shortness of breath, a feeling of being quickly wearied—more espe-

cially on the slightest exertion. The hair of a consumptive person usually falls off, and what little remains is weak and poor; the joints of the fingers become enlarged, or clubbed as it is sometimes called; the patient loses flesh, and, after some time, night sweats make their appearance: then we may know that hectic fever has commenced.

Hectic begins with chilliness, which is soon followed by flushings of the face, and by burning heat of the hands and the feet, especially of the palms and the soles. This is soon succeeded by perspirations. The patient has generally during the day two decided paroxysms of hectic fever—the one at noon, which lasts about five hours; the other in the evening, which is more severe, and ends in violent perspirations, which perspirations continue the whole night through. He may, during the day, have several attacks of hectic flushes of the face, especially after eating; at one moment he complains of being too hot, and rushes to the cool air; the next moment he is too cold, and almost scorches himself by sitting too near the fire. Whenever the circumscribed hectic flush is on the cheek, it looks as though the cheek had been painted with vermilion; then is the time when the palms of the hands are burning hot. Crabbe, in the following lines, graphically describes the hectic flush:—

> "When his thin cheek assumed a deadly hue,
> And all the rose to one small spot withdrew:
> They call'd it hectic; 'twas a fiery flush,
> More fixed and deeper than the maiden blush."

The expectoration at first is merely mucus, but after a time it assumes a characteristic appearance; it has a roundish, flocculent, wooly form, each portion of phlegm keeping, as it were, distinct. The patient is commonly harassed by frequent bowel complaints, which rob him of what little strength he has left. The feet

and ankles swell. The perspiration, as before remarked, comes on in the evening and continues all night—more especially towards morning, and while the patient is asleep; during the time he is awake, even at night, he seldom sweats much. The thrush generally shows itself towards the close of the disease, attacking the tongue, the tonsils, and the soft palate, *and is a sure harbinger of approaching death.* Emaciation rapidly sets in.

If we consider the immense engines of destruction at work, viz., the colliquative (melting) sweats, the violent bowel complaints, the vitals parts that are affected, the harassing cough, the profuse expectoration, the hectic fever, the distressing exertion of struggling to breathe—we cannot be surprised that "consumption has hung out her red flag of no surrender," and that death soon closes the scene. In girls, provided they have been previously regular, menstruation gradually declines, and then entirely disappears.

521. *What is the cause of Consumption?*

The invasion of the lungs by a minute germ called the tubercle bacillus, which first brings about consolidation of the sponge-like lung tissue, and then destruction and death of the parts.

522. *What are the predisposing causes?*

The *predisposing* causes of consumption are: hereditary predisposition, constitutional predisposition, tubercular disease elsewhere, narrow or contracted chest, delicacy of constitution, bad and scanty diet, or food containing but little nourishment; impure air, close indoor confinement in schools, in shops, and in factories, ill-ventilated apartments, dissipation, late hours; overtaxing with book-learning the growing brain, thus producing debility; want of proper out-door exercise and amusements, tight-lacing; indeed, anything and everything, that either will debilitate the constitution, or will interfere with, or will impede, the proper action of the

lungs, will be the predisposing causes of this fearful and lamentable disease.

An ill, poor, and insufficient diet is the mother of many diseases, and especially of consumption: "Whatsoever was the father of a disease, an ill diet was the mother."

The most common *exciting* causes of consumption are slighted colds, neglected inflammation of the chest, long continuance of influenza, sleeping in damp beds, allowing wet clothes to dry on the body, unhealthy employments—such as needle-grinding, pearl button making, etc.

523. *Supposing a youth to have spitting of blood, what precautions would you take to prevent it from ending in consumption?*

Let his health be the first consideration; throw books to the winds; if he be at school, take him away; if he be in trade, cancel his indentures; if he be in the town, send him to a sheltered healthy spot in the country, or to the sea coast; as, for instance, either to Lakewood or Atlantic City.

I should be particular in his clothing, taking especial care to keep his chest and feet warm. If he did not already wear flannel underclothing, let it be winter or summer, I should recommend him immediately to do so. The feet must be carefully attended to; they ought to be kept both warm and dry, the slightest dampness of either shoes or stockings should cause them to be immediately changed. If a boy, he ought to wear a thick waistcoat with a flannel back. If a girl, high dresses.

The diet must be nutritious and generous; he should be encouraged to eat plentifully of beef and mutton. There is nothing better for breakfast, where it agrees, than milk; indeed, it may be frequently made to agree by previously boiling it. Good home-brewed ale or sound porter ought, in moderation, to be taken. Wine

and spirits must on no account be allowed. I caution parents in this particular, as many have an idea that wine, in such cases, is strengthening, and that *rum* and milk is a good thing either to cure or to prevent a cough !

If it be summer, let him be much in the open air, avoiding the evening and the night air. If it be winter, he should, unless the weather be mild for the season, keep within doors. Particular attention ought to be paid to the point the wind is in, as he should not be allowed to go out if it is in the north, in the east, or in the northeast ; the latter is more especially dangerous. If it be spring, and the weather be favorable, or summer, or autumn, change of air, more especially to the south coast, would be desirable ; indeed, in a case of spitting of blood, I know no remedy so likely to ward off that formidable, and, generally, intractable complaint—consumption—as change of air. The beginning of the autumn is, of course, the best season for visiting the coast. It would be advisable, at the commencement of October, to send him either to the south of France —to Mentone—or to Florida or Colorado to winter. But remember, if he be actually in a *confirmed* consumption, I would not, on any account whatever, let him leave his home ; as then the comforts of home will far, very far, outweigh any benefit of change of air.

524. *Suppose a youth to be much predisposed to a sore throat, what precautions ought he to take to ward off future attacks ?*

He must use every morning thorough ablution of the body, beginning cautiously ; that is to say, commencing with the neck one morning, then by degrees, morning after morning, sponging a larger surface, until the whole of the body be sponged. The chill at first must be taken off the water ; gradually the temperature ought to be lowered until the water be quite cold, taking care to rub the body thoroughly dry with a coarse towel—a Turkish rubber being the best for the purpose.

He ought to bathe his throat externally every night and morning with lukewarm salt and water, the temperature of which must be gradually reduced until at length no warm water be added. He ought to harden himself by taking plenty of exercise in the open air. He must, as much as possible, avoid either sitting or standing in a draught; if he be in one, he should face it. He ought to keep his feet warm and dry. He should take as little aperient medicine as possible. As he attains to manhood he ought to allow his beard to grow, as such would be a natural covering for his throat; I have known great benefit to arise from this simple plan. The fashion is now to wear the beard, not to use the razor at all, and a sensible fashion I consider it to be. The finest respirator in the world is the beard. The beard is not only good for sore throats, but for weak chests. The wearing of the beard is a splendid innovation; it saves no end of trouble, is very beneficial to health, and is a great improvement "to the human face divine." If his tonsils are chronically enlarged, he should have them removed.

525. *Have you any remarks to make on the almost universal habit of boys and of very young men smoking?*

I am not now called upon to give an opinion of the effects of tobacco smoking on the middle-aged and on the aged. I am addressing a mother as to the desirability of her sons, when boys, being allowed to smoke. I consider tobacco smoking one of the most injurious and deadly habits in which a boy or young man can indulge. It lessens the strength of the body, thus predisposing to consumption. It impairs the stomach, thus producing indigestion. It irritates the heart, producing palpitation and breathlessness. It weakens the blood, producing anemia. It produces irritability, and soreness of the throat. It debilitates the brain and nervous system, thus inducing epileptic fits and nervous

depression. It stunts the growth, and is one cause of the present race of pygmies. It makes the young lazy and disinclined for work. It is one of the greatest curses of the present day. The following cases prove, more than any argument can prove, the dangerous and deplorable effects of boy smoking. I copy the first case from *Public Opinion*. "*The France* mentions the following fact as a proof of the evil consequences of smoking for boys :—'A pupil in one of the colleges, only twelve years of age, was, some time since, seized with epileptic fits, which became worse and worse in spite of all the remedies employed. At last it was discovered that the lad had been, for two years past, secretly indulging in the weed. Effectual means were adopted to prevent his obtaining tobacco, and he soon recovered.'"

The other case occurred in my own practise. The patient was a youth of nineteen. He was an inveterate smoker. From being a bright intelligent lad, he was becoming idiotic, and epileptic fits were supervening. I painted to him in vivid colors the horrors of his case, and assured him, that if he still persisted in his bad practises, he would soon become a driveling idiot! I at length, after some trouble and contention, prevailed upon him to desist from smoking altogether. He rapidly lost all epileptic symptoms, his face soon resumed its wonted intelligence, and his mind asserted its former power. He remains well to this day, and is now a married man with a family. In New York there is an institution, amongst the children, called the Anti-Cigarette League, which has branches in many other cities of America. The "League" is composed of school boys, who have banded themselves together to discourage the smoking of cigarettes, by precept and by example, but chiefly the latter. Each boy is granted a badge, which he is expected to wear openly, so that his light may shine before other boys. The "League" has been productive of immense good.

526. *What are the best methods to restrain a violent bleeding from the nose?*

Do not, unless it be violent, interfere with a bleeding from the nose. A bleeding from the nose is frequently an effort of Nature to relieve herself, and, therefore, unless it be likely to weaken the patient, ought not to be restrained. If it be necessary to restrain the bleeding, press the nose firmly, for a few minutes, between the finger and the thumb; this alone will often stop the bleeding; if it should not, then try what bathing the nose, and the forehead, and the nape of the neck, with water quite cold from the pump, will do. If that does not succeed, try the old-fashioned remedy of putting a cold large door-key down the back. If these plans fail, try the effects of powdered alum or of powdered matico, used after the fashion of snuff—a pinch or two of the one, or of the other, or of both, should be sniffed up the bleeding nostril. If these should not answer the purpose, although they almost invariably will, apply a large lump of ice to the nape of the neck, and put a small piece of ice into the patient's mouth for him to suck.

If these methods do not succeed, plunge the hand and the fore-arm into cold water, keep them in for a few minutes, then take them out, and either hold, or let them be held up, the arms and the hands high above the head: this plan has frequently succeeded when others have failed. Let the room be kept cool, throw open the windows, and do not have many in the room to crowd around the patient.

If the above treatment does not soon succeed, send for a medical man, as more active means, such as plugging of the nostrils—*which is not done, unless in extreme cases*—might be necessary.

But before plugging of the nose is resorted to, it will be well to try the effects of a cold solution of alum (see Prescription XX., in Appendix).

A little of the lotion should be put into the palm of the hand and sniffed up the bleeding nostril; or, if that does not succeed, some of the lotion ought, by means of a syringe, to be syringed up the nose. Children with Adenoid Vegetations (see Conversation 167) very frequently suffer from bleeding from the nose, so you had better have the child examined. Apart from this, it is a symptom which occurs in association with many and various disorders.

527. *In case of a young lady fainting, what had better be done?*

Lay her flat upon her back, taking care that the head be as low as, or lower than, the body; throw open the windows, do not crowd around her,* unloosen her dress as quickly as possible; ascertain if she have been guilty of tight-lacing—for fainting is sometimes produced by that reprehensible practise. Apply smelling salts to her nostrils; if they be not at hand, burn a piece of rag under her nose; dash cold water upon her face; throw open the window; fan her; and do not, as is generally done, crowd around her, and thus prevent a free circulation of air. As soon as she can swallow, give her either a draught of *cold* water, or a glass of wine, or a teaspoonful of sal-volatile in a wineglassful of water.

To prevent fainting in the future.—I would recommend early hours; country air and exercise; the stays, if worn at all, to be worn slack; attention to diet; avoidance of wine, beer, spirits, excitement, and fashionable amusements.

Sometimes the cause of a young lady fainting is either a disordered stomach, or a constipated state of the bowels.

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* Shakspeare knew the great importance of not crowding around a patient who has fainted. He says:—

"So play the foolish throngs with one that swoons;
Come all to help him, and so stop the air
By which he should revive."

If the fainting have been caused by *disordered stomach*, it may be necessary to stop the supplies, and give the stomach, for a day or two, but little to do ; a fast will frequently prevent the necessity of giving medicine. Of course, if the stomach be *much* disordered, it will be desirable to consult a medical man.

If your daughter's fainting have originated from a *costive state of the bowels* (another frequent cause of fainting), I beg to refer you to a subsequent Conversation, in which I will give you a list of remedies for the prevention and the treatment of constipation.

A young lady's fainting occasionally arises from debility—from downright weakness of the constitution ; then the best remedies will be change of air to the coast, good nourishing diet, and strengthening medicines, which your doctor will prescribe.

Iron medicines ought always to be taken *after* instead of *before* a meal. The best times of the day for taking such medicines will be eleven o'clock, four o'clock, and seven o'clock.

528. *Will you give me a list of remedies for the prevention and for the cure of Constipation?*

If you find it necessary to give your son or daughter an aperient, the mildest should be selected ; for instance, an agreeable and effectual one, is an electuary composed as in Prescription XXI. of Appendix.

Or, one or two teaspoonfuls of Compound Confection of Senna (lenitive electuary) may occasionally early in the morning, be taken. Or, for a change, a teaspoonful of Magnesia, in half a tumblerful of warm water. If this should not be sufficiently active, a teaspoonful of Epsom Salts should be given with the Magnesia. A Seidlitz Powder forms another safe and mild aperient, or one or two Compound Rhubarb Pills may be given at bedtime. Or one of the mineral waters, such as Hunyadi, or Rubinat taken in warm water, the first thing in the morning. Glycerine suppositories are

reliable. "Tamar Indian" lozenges and Cascara chocolate bonbons can also be taken. Prescription XXII. of Appendix for a pill, where an aperient is absolutely necessary, is a mild, gentle, and effective one for the purpose.

But, after all, the best opening medicines are—cold ablutions every morning of the whole body; attention to diet; variety of food; bran-bread; grapes; stewed prunes; French plums; Muscatel raisins; figs; fruit, both cooked and raw—if it be ripe and sound; oatmeal porridge; lentil powder; vegetables of all kinds, especially spinach; exercise in the open air; early rising; daily visiting the water-closet at a certain hour—there is nothing keeps the bowels open so regularly and well as establishing the habit of visiting the water-closet at a certain hour every morning; and the other rules of health specified in these Conversations. If more attention were paid to these points, poor schoolboys and schoolgirls would not be compelled to swallow such nauseous and disgusting messes as they usually do to their aversion and injury.

Should these plans not succeed (although in the majority of cases, with patience and perseverance, they will), I would advise an enema once or twice a week, simply of warm water; or of one made of gruel, table-salt, and olive-oil, in the proportion of two tablespoonfuls of salt, two of oil, and a pint of warm gruel, which a boy may administer to himself, or a girl to herself, by means of a proper enema apparatus.

Hydropathy is oftentimes very serviceable in preventing and in curing costiveness; and as it will sometimes prevent the necessity of administering medicine, it is both a boon and a blessing. "Hydropathy also supplies us with various remedies for constipation. From the simple glass of cold water, taken early in the morning to the various douches and sea-baths, a long list of useful appliances might be made out, among which we

may mention the 'wet compress' worn for three hours over the abdomen [bowels], with a gutta percha covering."

I have here a word or two to say to a mother who is always physicking her family. It is an unnatural thing to be constantly dosing either a child, or any one else, with medicine. One would suppose that some people were only sent into the world to be physicked! If more care were paid to the rules of health, very little medicine would be required! This is a bold assertion; but I am confident that it is a true one. It is a strange admission for a medical man to make, but, nevertheless, my conviction compels me to avow it.

529. *What is the reason girls are so subject to Costiveness?*

The principal reason why girls suffer more from costiveness than boys, is that their habits are more sedentary. The best opening medicines in the world are an abundance of exercise, of muscular exertion, and of fresh air. Unfortunately, poor girls in this enlightened age must be engaged, sitting all the while, for several hours every day at fancy work, the piano, and other accomplishments; they, consequently, have little time for exercise of any kind. The bowels, as a matter of course, become constipated; they are, therefore dosed with pills, with black draughts, with sulphur and molasses—Oh! the abomination!—and with medicines of that class, almost *ad infinitum*. What is the consequence? Opening medicines, by constant repetition, lose their effects, and, therefore, require to be made stronger and still stronger, until at length, the strongest will scarcely act at all, and the poor unfortunate girl, when she becomes a woman, *if she ever does become one*, is spiritless, heavy, dull, and listless, requiring daily doses of physic, until she almost lives on medicine!

All this misery and wretchedness proceed from Nature's laws having been set at defiance, from *artificial*

means taking the place of *natural* ones—from a mother adopting as her rule and guide, fashion and folly, rather than reason and common sense. When will a mother awake from her folly and stupidity? This is strong language to address to a lady; but it is not stronger than the subjects demands.

Mothers! do let me entreat you, ponder well upon what I have said. Do rescue your girls from the bondage of fashion and folly, which is worse than the bondage of the Egyptian task-masters; for the Israelites did, in making bricks without straw, work in the open air—"So the people were scattered abroad throughout all the land of Egypt to gather stubble instead of straw;" but your girls, many of them, at least, have no work, either in the house or in the open air—they have no exercise whatever. They are poor, drawling dawdling, miserable nonentities, with muscles, for the want of proper exercise, like ribbons; and with faces, for the lack of fresh air, as white as a sheet of paper. What a host of charming girls are yearly sacrificed at the shrine of fashion and of folly!

Another, and a frequent cause of costiveness, is the bad habit of disobeying the call of having the bowels opened. The moment there is the slightest inclination to relieve the bowels *instantly* it ought to be attended to, or serious results will follow. Let me urge a mother to instil into her daughter's mind the importance of this advice.

530. *Young people are subject to pimples on the face, what is the remedy?*

These hard red pimples (*acne*—"the grub pimple") are a common and an obstinate affection of the skin, affecting the forehead, the temples, the nose, the chin, and the cheeks; occasionally attacking the neck, the shoulders, the back, and the chest; and as they more frequently affect the young, from the age of fifteen to thirty-five, and are disfiguring, they cause much annoy-

ance. These pimples are so well known by most persons as scarcely to need description ; they are conical, red, and hard ; after a while, they become white, and yellow at the point, then discharge a thick, yellow-colored matter, mingled with a whitish substance, and become covered by a hard brown scab, and lastly, disappear very slowly, sometimes very imperfectly, and often leaving an ugly scar behind them. To these symptoms are not unfrequently added considerable pain, and always much unsightliness. When these little cones have the black head of a "grub" at their point, they constitute the variety termed *spotted acne*. These latter often remain stationary for months without increasing or becoming red ; but when they inflame they are in nowise different in their course from the common kind.

I find in these cases great benefit to be derived from the following application :—Hypochloride of Sulphur, one drachm ; Carbonate of Potash, ten grains ; Vaseline, one ounce. Make an ointment. By paying attention to the bowels ; by living on plain, wholesome, nourishing food ; and by taking a great deal of outdoor exercise. Sea-bathing, in these cases, is often very beneficial.

531. *What is the cause of a Gum-boil?*

A decayed root of a tooth, which causes inflammation and abscess of the gum, which abscess breaks, and thus becomes a gum-boil.

532. *What is the treatment of a Gum-boil?*

Foment the outside of the face with a hot camomile and poppy-head fomentation,* and apply to the gum-boil, between the cheek and the gum, a small white bread and milk poultice,† which renew frequently.

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* Four poppy-heads and four ounces of camomile flowers to be boiled in four pints of water for half an hour, and then to be strained to make the fomentation.

† Cut a piece of bread, about the size of the little finger—without breaking it into crumb—pour boiling hot milk upon it, cover it over, and let it stand for five minutes, then apply

As soon as the gum-boil has become quiet, *by all means* have the affected tooth extracted, or it might cause disease, and consequently serious injury of the jaw ; and whenever the tooth becomes infected by decomposing food there will be a renewal of the inflammation, of the abscess, and of the gum-boil, and, as a matter of course, renewed pain, trouble, and annoyance. Moreover, decayed fangs of teeth often cause the breath to be offensive.

533. *What is the best remedy for a Corn ?*

The best remedy for a *hard corn* is to remove it. The usual method of cutting, or of paring a corn away, is erroneous. The following is the right way—Cut with a *sharp* pair of pointed scissors around the circumference of the corn. Work gradually round and round and towards the center. When you have for some considerable distance well loosened the edges, you can either with your fingers, or with a pair of forceps, generally remove the corn bodily, and that without pain and without the loss of any blood ; this plan of treating a corn I can recommend to you as being most effectual.

If the corn be properly and wholly removed it will leave a small cavity or round hole in the center, where the blood-vessels and the nerve of the corn—vulgarly called the root—really were, and which, in point of fact, constituted the very existence or the essence of the corn. Moreover, if the corn be entirely removed, you will, without giving yourself the slightest pain, be able to squeeze the part affected between your finger and thumb.

Hard corns on the sole of the foot and on the sides of the foot are best treated by filing—by filing them with a sharp cutting file (flat on one side and convex on

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the soaked bread over the gum-boil, letting it rest between the cheek and the gum.

the other), neither too coarse nor too fine in the cutting. The corn ought, once every day, to be filed, and this should be daily continued until you experience a slight pain, which tells that the end of the corn is approaching. Many cases of *hard corn* that have resisted every other plan of treatment have been *entirely* cured by means of the file. One great advantage of the file is, it cannot possibly do any harm, and may be used by a timid person—by one who would not readily submit to any cutting instrument being applied to the corn.

The file, if properly used, is an effectual remedy for a *hard* corn on the sole of the foot. I myself have seen the value of it in several cases, particularly in one case, that of an old gentleman of ninety-five, who had had a corn on the sole of his foot for upwards of half a century, and which had resisted numerous, indeed almost innumerable remedies ; at length I recommended the file, and after a few applications entire relief was obtained, and the corn was completely eradicated.

The corns between the toes are called *soft corns*. A *soft corn* is quickly removed by the strong Acetic Acid —Acid. Acetic Fort.—which ought to be applied to the corn every night by means of a small piece of wood—as a match. The toes should be kept asunder for a few minutes, in order that the acid may soak in, then apply between the toes a small piece of cotton wool.

Galbanum Plaster spread either on wash leather, or on what is better, on an old white kid glove, has been, in one of our medical journals, strongly recommended as a corn-plaster ; it certainly is an admirable one, and when the corn is between the toes is sometimes most comfortable—affording immense relief.

Corns are like the little worries of life—very teasing and troublesome : a good remedy for a corn—which the Galbanum Plaster undoubtedly is—is therefore worth knowing.

Hard corns, then, on the sole and on the side of the

foot are best treated by the file ; *hard corns* on the toes by the scissors ; and *soft corns* between the toes either by the strong Acetic Acid or by the Galbanum Plaster.

In the generality of cases the plans recommended above, if properly performed, will effect a cure ; but if the corn, from pressure or from any other cause, should return, remove it again, and proceed as before directed. If the corn has been caused either by tight or by ill-fitting shoes, the only way to prevent a recurrence is, of course, to have the shoes properly made by a clever shoemaker—by one who thoroughly understands his business, and who will have a pair of lasts made purposely for the feet.*

The German method of making boots and shoes is a capital one for the prevention of corns, as the boots and shoes are made scientifically to fit a *real* and not an *ideal* foot.

One of the best preventives of, as well as of the best remedies for, corns, especially of soft corns between the toes, is washing the feet every morning, as recommended in a previous Conversation,† taking especial care to wash with the thumb, and afterwards to wipe with the towel, between each toe.

534. *What are the best remedies to destroy a Wart?*

Pure Nitric Acid,‡ carefully applied to the wart by means of a small stick of cedar wood—a camel's hair pencil-holder—every other day, will soon destroy it. Care must be taken that the acid does not touch the healthy skin, or it will act as a caustic to it. The nitric acid should be preserved in a stoppered bottle, and

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* As long as fashion instead of common sense is followed in the making of both boots and shoes, men and women will, as a matter of course, suffer from corns.

† Youth—Ablution, Conversation 459.

‡ A very small quantity of pure Nitric Acid—just a grain at the bottom of a stoppered bottle—is all that is needed : it can be procured of any druggist.

must be put out of the reach of children. One of the best remedies is 40 grains of Salicylic Acid dissolved in 1 ounce of Glycerine.

Glacial Acetic Acid is another excellent destroyer of warts : it should be applied by means of a piece of stick —as a match—to each wart, every night just before going to bed. The warts will, after a few applications, completely disappear.

535. *What is the best remedy for tender feet, for sweaty feet, and for smelling feet ?*

Cold water : bathing the feet in cold water, beginning with tepid water, but gradually from day to day reducing the warm until the water be quite cold. A large nursery-basin one-third full of water ought to be placed on the floor, and one foot at a time should be put in the water, washing the while, with a sponge, the foot, and with the thumb between each toe. Each foot should remain in the water about half a minute. The feet ought, after each washing, to be well dried, taking care to dry with a towel between each toe. The above process must be repeated at least once every day—every morning, and if the annoyance be great, every night as well. Washing the feet night and morning in Condy's Fluid is an excellent remedy. When dry, powder the feet with equal parts of Oxide of Zinc and Boracic Acid ; a clean pair of stockings ought in these cases to be put on daily, as perfect cleanliness is absolutely necessary, both to afford relief, and to effect a cure.

If the feet be tender, or if there be either bunions or corns, the shoes and the boots made according to the German method (which are fashioned according to the actual shape of the foot) should alone be worn.

536. *What are the causes of so many young ladies of the present day being weak, nervous, and unhappy ?*

The principal causes are—ignorance of the laws of health, Nature's laws being set at naught by fashion and by folly, by want of fresh air and exercise, by want of

occupation, and by want of self-reliance. Weak, nervous, and unhappy! Well they might be! What have they to make them strong and happy? Have they work to do to brace the muscles? Have they occupation—useful, active occupation—to make them happy? No! they have neither the one nor the other!

537. *To what diseases are girls most subject?*

The diseases peculiar to girls are chlorosis, or green-sickness, and hysterics.

538. *What are the usual causes of chlorosis?*

Chlorosis is primarily due to imperfect development of the vascular system, and imperfect growth of the blood. It is generally produced by scanty or by improper food, by the want of air, sunlight, and of exercise, and by too close application within doors. Here we have the same tale over again—close application within doors, and the want of fresh air, sunlight, and of exercise! When will the eyes of a mother be opened to this important subject?—the most important that can engage her attention.

539. *What is the usual age for Chlorosis to occur and what are the symptoms?*

Chlorosis more frequently attacks girls from fifteen to twenty years of age; although unmarried women much older occasionally have it, and children sometimes suffer. I say *unmarried*, for, as a rule, it is a complaint of the *single*.

The patient, first of all, complains of being languid, tired, and out of spirits; she is fatigued with the slightest exertion; she has usually palpitation of the heart (so as to make her fancy that she has a disease of that organ, which, in all probability, she has *not*); she has shortness of breath, and a short dry cough; her face is flabby and pale; her complexion gradually assumes a yellowish or greenish hue—hence the name of chlorosis; there is a dark, livid circle around her eyes; her lips lose their color, and become almost white; her tongue

is generally white and pasty, her appetite is bad, and is frequently depraved—the patient often preferring chalk, slate-pencil, cinder, and even dirt, to the daintiest food; indigestion frequently attends chlorosis; she has usually pains over the short-ribs, on the *left* side; she suffers greatly from "wind"—is frequently nearly choked by it; her bowels are generally costive, and the stools are unhealthy; she has pains in her hips, loins, and back; and her feet and ankles are oftentimes swollen. *The menstrual discharge is either suspended or very partially performed;* if the latter, it is, usually, almost colorless. Hysterical fits not unfrequently occur during an attack of chlorosis.

540. *How may Chlorosis be prevented?*

If health were more, and fashion were less, studied, chlorosis would not be such a frequent complaint. This disease generally takes its rise from mismanagement—from Nature's laws having been set at defiance. I have heard a silly mother express an opinion that it is not *genteel* for a girl to eat *heartily!* Such language is perfectly absurd and cruel. How often, too, a weak mother declares that a healthy, blooming girl looks like a milkmaid! It would be well if she did! How true and sad it is, that a "pale, delicate face, and clear eyes, indicative of consumption, are the fashionable *desiderata* at present for complexion."—*Dublin University Magazine.*

A growing girl requires *plenty* of *good* nourishment—as much as her appetite demands; and if she has it not, she will become chlorotic, or consumptive, or delicate. Besides, *the greatest beautifier in the world is health;* therefore, by a mother studying the health of her daughter, she will at the same time adorn her body with beauty! I am sorry to say that too many parents think more of the beauty than of the health of their girls. Sad and lamentable infatuation! Nathaniel Hawthorne—a distinguished American—gives a graphic

description of a delicate young lady. He says :—"She is one of those delicate nervous young creatures not uncommon in New England, and whom I suppose to have become what we find them by the gradually refining away of the physical system among young women. Some philosophers choose to glorify this habit of body by terming it spiritual ; but, in my opinion, it is rather the effect of unwholesome food, bad air, lack of outdoor exercise, and neglect of bathing, on the part of these damsels, and their female progenitors, all resulting in a kind of hereditary dyspepsia."

Nathaniel Hawthorne was right. Such ladies, when he wrote, were not uncommon ; but within the last two or three years, to their great credit be it spoken, "a change has come o'er the spirit of their dreams," and they are wonderfully improved in health ; for, with all reverence be it spoken, "God helps them who help themselves," and they have helped themselves by attending to the rules of health :—"The women of America are growing more and more handsome every year for just this reason. They are growing rounder of chest, fuller of limb, gaining substance and development in every direction. Whatever may be urged to the contrary we believe this to be a demonstrable fact. . . . When the rising generation of American girls once begins to wear thick shoes, to take much exercise in the open air, to skate, to play at croquet, and to affect the saddle, it not only begins to grow more wise but more healthful, and—which must follow as the night the day—more beautiful."—*The Round Table.*

If a young girl had plenty of wholesome meat, varied from day to day, either plain roast or boiled, and not stewed, or hashed, or highly seasoned for the stomach ; if she had an abundance of fresh air for her lungs ; if she had plenty of active exercise, such as skipping, dancing, running, riding, swimming, for her

muscles; if her clothing were warm and loose, and adapted to the season; if her mind were more occupied with active *useful* occupation, such as household work, than at present, and if she were kept calm and untroubled from the hurly-burly and excitement of fashionable life—chlorosis would almost be an unknown disease. It is a complaint of rare occurrence with country girls, but of great frequency with fine city ladies.

541. *What treatment should you advise?*

The treatment which would prevent should be adopted when the complaint first makes its appearance. If the above means do not quickly remove it, the mother must then apply to a medical man, and he will give medicines *which will soon have the desired effect.* Chlorosis is very amenable to treatment. If the disease be allowed for any length of time to run on, it may produce organic—incurable—disease of the heart, or consumption, or indigestion, or confirmed ill-health.

542. *At what period of life is a lady most prone to Hysterics, and what are the symptoms?*

The time of life when hysterics occur is generally from the age of fifteen to fifty. Hysterics come on by paroxysms—hence they are called hysterical fits. A patient, just before an attack, is low-spirited, crying without a cause; she is "nervous," as it is called; she has flushings of the face; she is at other times very pale; she has shortness of breath and occasional palpitations of the heart; her appetite is usually bad; she passes quantities of colorless limpid urine, having the appearance of pump water; she is much troubled with flatulence in her bowels, and, in consequence, she feels bloated and uncomfortable. The "wind" at length rises upwards towards the stomach, and still upwards to the throat, giving her the sensation of a ball stopping her breathing, and producing a feeling of suffocation. The sensation of a ball in the throat (*globus hystericus*) is the commencement of the fit.

She now becomes *partially* insensible, although she seldom loses *complete* consciousness. Her face becomes flushed, her nostrils dilated, her head thrown back, and her stomach and bowels enormously distended with "wind." After a short time she throws her arms and her legs about convulsively, she beats her breast, tears her hair and clothes, laughs boisterously and screams violently; at other times she makes a peculiar noise; sometimes she sobs and her face is much distorted. At length she brings up enormous quantities of "wind;" after a time she bursts into a violent flood of tears, and then gradually comes to herself.

As soon as the fit is at an end she generally passes enormous quantities of colorless limpid urine. She may, in a short time, fall into another attack similar to the above. When she comes to herself she feels exhausted and tired, and usually complains of a slight headache, and of great soreness of the body and limbs. She seldom remembers what has occurred during the fit. Hysterics are sometimes frightful to witness, but in themselves are not at all dangerous.

Hysterics—an hysterical fit—is sometimes styled hysterical passion; Shakspeare, in one of his plays, calls it *hysterica passio*—

> "Oh, how this, mother, swells up toward my heart!
> *Hysterica passio!*"

Sir Walter Scott graphically describes an attack:—"The hysterical passion that impels tears is a terrible violence—a sort of throttling sensation—then succeeded by a state of dreaming stupidity."

543. *What are the causes of Hysterics?*

A nervous inheritance. Delicate health, chlorosis, improper and not sufficiently nourishing food, grief, anxiety, excitement of the mind, closely confined rooms, want of exercise, indigestion, flatulence, and tight-lacing, are the causes which usually produce hysterics.

Hysterics are frequently feigned ; indeed, oftener than any other complaint ; and even a *genuine* case is usually much aggravated by a patient herself giving way to them.

544. *What do you recommend a hysterical lady to do?*

To improve her health by proper management ; to rise early and to take a walk, that she may breathe pure and wholesome air—indeed, she ought to live nearly half her time in the open air, exercising herself with walking, skipping, etc.; to employ her mind with botany, croquet, archery, or with any outdoor amusement ; to confine herself to plain, wholesome, nourishing food ; to avoid tight-lacing ; to eschew fashionable amusements ; and, above all, not to give way to her feelings, but if she feel an attack approaching, to rouse herself.

If the fit be upon her, the better plan is to banish all the *male* sex from the room, and not even to have many women about her, and for those round to loosen her dress ; to lay her in the center of the room, flat upon the ground, with a pillow under her head ; to remove combs and pins and brooches from her person ; to dash cold water upon her face ; to apply cloths, or a large sponge wetted in cold water, to her head ; to throw open the window, and then to leave her to herself ; or, at all events, to leave her with only one *female* friend or attendant. If such be done, she will soon come round ; but what is the usual practise ? If a girl be in hysterics, the whole house, and perhaps the neighborhood, is roused ; the room is crowded to suffocation ; fears are openly expressed by those around that she is in a dangerous state ; she hears what they say, and her hysterics are increased tenfold.

545. *When are hysterical disorders most common?*

At puberty. They are rare before six years of age. Girls mostly suffer, but it is not uncommon in boys.

546. *Are there not other symptoms of Hysteria in children besides the hysterical fit?*

Yes, certainly. Hysterical loss of voice is not uncommon. The patient cannot speak above a whisper. Next, there is hysterical loss of power over the limbs, usually the lower, but sometimes the upper as well. Then there is a condition in which the food is refused, or the child vomits everything that is taken. The body wastes to a shadow and becomes mummy-like. The breath is foul, and bedsores form. Joint diseases are simulated, and the child appears to be suffering from hip joint disease, or there is acute pain over the spine, and the parents fear that spinal disease is commencing. Hysterical headaches are not at all uncommon. The distinction between organic disease and hysterical affections can only be made by a skilled medical man.

547. *What is the treatment?*

For simple cases, the general health must be improved, and change of scene and occupation are advisable. In severe cases, such as paralysis, refusal of food, sickness, and wasting, removal from the relatives and friends, and isolation in a Medical Home, with appropriate medical treatment and moral control, will bring about a cure. Hysterical loss of voice is cured by an application of the galvanic battery to the interior of the glottis by means of a special electrode.

548. *What are the causes of Headaches?*

Headache is very common in children over six years of age, and is due to many causes. The pain is usually referred to the forehead. The fevers, typhoid fever for instance, are often ushered in by headache, and headache may denote brain disease. Not unfrequently headache is due to a defect in the globe of the eye, which requires remedying by spectacles. When the appropriate glasses have been supplied, the headache disappears like magic. Children who have adenoid vegetations are liable to suffer from headache. The child may be "outgrowing his strength;" perhaps he has indigestion, or is anæmic, or suffers from constipation, or

is being overworked at school. Then there is the sick-headache from want of exercise, and a life spent indoors. Sometimes this headache is one-sided, and is accompanied by disturbance of vision. Headache at puberty is often associated with "irregularity." The hysterical headache is associated with mental depression—it demands sympathy, absence of sounds, a darkened room, and is intensified or induced by distasteful occupation. The nature of the headache must be discovered by a medical man, when appropriate treatment can be directed to its cure.

549. *You have mentioned Scurvy as occurring in infants. What are the symptoms in older children?*

The child is pale, the gums are swollen, spongy, and readily bleed. Bruises are found about the body, and blood comes from the nose and the bowels, and is found in the urine. Such a condition occurs when the food has been poor, and when fresh vegetables have not been taken. Call in your doctor, and he will cure the child.

550. *Have you any remarks to make on a patient recovering from a severe illness?*

There is something charming and delightful in the feelings of a patient recovering from a severe illness; it is like a new birth; it is almost worth the pain and anguish of having been ill to feel quite well again; everything around and about him wears a charming aspect—a roseate hue; the appetite for food returns with pristine vigor; the viands, be they ever so homely, never tasted before so deliciously sweet, and a draught of water from the spring has the flavor of ambrosial nectar; the convalescent treads the ground as though he were on the ambient air, and the earth to him for a while is Paradise—the very act of living in a joy and gladness—

"See the wretch that long has tost
On the thorny bed of pain
Again repair his vigor lost,
And walk and run again.

The meanest flow'ret of the vale,
The simple note that swells the gale,
The common air, the earth, the skies,
To him are opening Paradise."—*Gray.*

In conclusion, I beg to thank you for the courtesy, confidence, and attention I have received at your hands, and to express a hope that my advice, through God's blessing, may not have been given in vain, but that it may be—one among many—a humble instrument for improving the race of our children! Oh, that the time may come, and may not be far distant, "That our sons may grow up as the young plants, and that our daughters may be as the polished corners of the temple!"

APPENDIX.

Prescriptions.

It is to be most distinctly and emphatically understood that these Prescriptions are only to be used when the immediate attendance of a medical man cannot be secured. Under such circumstances the natural tendency is to fly to the nearest druggist and to ask him to prescribe ; it is to avoid this error, which has often been attended with fatal consequences, that I give the constitution and directions for use of a few simple remedies.

I. See Conversation 97.

Take of—Aromatic Spirit of Ammonia twenty minims
Tincture of Catechu . . twenty minims
Chalk Mixture . . . to one ounce

One or two teaspoonfuls according to whether he is under or over one year of age.

II. See Conversation 97.

Take of—Carbonate of Bismuth . . twenty grains
Carbonate of Sodium . . twenty grains
Mucilage . . . . one drachm
Peppermint Water . . to one ounce

One or two teaspoonfuls according to whether he is under or over one year of age. Keep the body warm.

III. See Conversation 99.

Take of—Ipecacuanha Wine . . twenty minims
Carbonate of Ammonia . two grains
Simple Syrup . . . one drachm
Peppermint Water . . to one ounce

One or two teaspoonfuls according to whether he is under or over one year of age.

IV. See Conversation 101.

Take of—Spirit of Nitrous Ether . one drachm
Solution of Acetate of Ammonia half an ounce
Water . . . . . to two ounces

A teaspoonful or two every two or three hours according to whether he is under or over one year of age.

V. See Conversation 140.

Take of—Powdered Turkey Rhubarb . ten grains
Carbonate of Magnesia . twenty grains
Simple Syrup . . . three drachms
Dill Water . . . . eight drachms.

Make a mixture. One or two teaspoonfuls, according to whether he is under or over one year of age, to be taken every four hours till relief is obtained, first shaking the bottle.

VI. See Conversation 144.

Take of—Calomel—a quarter of a grain every two hours until all the curds have passed.

VII. See Conversation 144.

Take of—Carbonate of Bismuth . . forty grains
Salol . . . . . sixteen grains
Mucilage . . . . one drachm
Peppermint Water . . to one ounce

Shake the bottle well and give one or two teaspoonfuls every three hours, according as he is under or over one year of age.

VIII. See Conversation 148.

Take of—Salicylate of Soda . . eight grains
Aromatic Spirit of Ammonia forty minims
Syrup of Ginger . . . one drachm
Peppermint Water . . to one ounce

A teaspoonful or two every two hours according as he is under or over one year of age.

IX. See Conversation 148.

Take of—Resorcin . . . . sixteen grains
Spirits of Chloroform . . fifteen minims
Simple Syrup . . . one drachm
Peppermint Water . . to one ounce

A teaspoonful or two every two hours according as he is under or over one year of age.

X. See Conversation 157.

Take of—Powdered Turkey Rhubarb . two or three grains
Carbonate of Magnesia . . three grains
Aromatic Powder . . . one grain

Mix. The powder to be mixed in a teaspoonful of sugar and water and taken at bedtime. If necessary repeat the dose the following night.

XI. See Conversation 158.

Take of—Chlorate of Potash . . twenty grains
Syrup of Mulberries . . one drachm
Peppermint Water . . to one ounce

A teaspoonful or two according as he is under or over one year of age.

XII. See Conversation 160.

Take of—Chlorate of Potash . . ten grains
Tepid Water . . . . half a tumblerful

Mix. The mouth to be gargled with this three or four times a day.

XIII. See Conversation 160.

Take of—Chlorate of Potash . . two grains
Syrup . . . . . five drops
Water . . . . . a teaspoonful

Mix. Give this for a dose to a child of a year old every four hours.

XIV. See Conversation 276.

Take of—Powdered Ipecacuanha . twenty grains
Wine of Ipecacuanha . . one ounce and a half

Make a mixture. One or two teaspoonfuls to be given every five minutes until free vomiting is excited, first well shaking the bottle.

XV. See Conversation 276.

Take of—Wine of Ipecacuanha . . three drachms
Simple Syrup . . . three drachms
Water . . . . . six drachms

Make a mixture. A teaspoonful to be given every two or three hours.

XVI. See Conversation 340.

Take of—Oil of Cloves . . . . one drachm
Oil of Amber . . . . two drachms
Camphorated Oil . . . nine drachms

Make a liniment. Shake the bottle before using.

XVII. See Conversation 415.

Take of—Ointment of Ammoniated Mercury, and of
Soft Paraffin—each half an ounce.

Mix. Apply to the head, well rubbing in the ointment for ten minutes night and morning.

XVIII. See Conversation 418.

Take of—Sulphur Ointment . . one part
Zinc Ointment . . . one part

Mix.

XIX. See Conversation 448.

Take of—Sulphate of Zinc . . . twenty grains
Simple Syrup . . . one drachm
Distilled Water . . . seven drachms

To make a draught. When he has been well sick, give him tea which has been standing on the leaves some ten minutes or so.

XX. See Conversation 526.

Take of—Powdered Alum . . . one drachm
Cold Water . . . . half a pint

To make a lotion.

XXI. See Conversation 528.

Take of—Best Alexandria Senna, powdered one ounce
Best Figs . . . . . two ounces
Best Raisins (stoned) . . . two ounces

All chopped very fine. The size of a nutmeg or two to be eaten, either early in the morning or at bedtime.

XXII. See Conversation 528.

Take of—Extract of Socotrine Aloes . eight grains
Compound Extract of Colocynth forty-eight grains
Hard Soap . . . . twenty-four grains
Molassas . . . . . a sufficient quantity

To make twenty-four pills. One or two to be taken at bedtime occasionally.

INDEX.

Ablution of an infant, 5; age to commence, 6; sponge recommended, 6; general observations on, 7, 11; how often necessary, 9; powders to use, 10; thorough ablution a preventive of costiveness, 108.
Ablution of a child, 142; of boys and girls, 353; paraphernalia required, 354; on walking, 207; when perspiring, 143.
Abscesses in throat and neck in scarlet fever, 243; in kidney, 253.
Accidents, 337, prevention of, 352.
Acetic acid, 412,
Acne of face, 408; spotted, 409.
Adenoid vegetations described, 137, 190, 282; effects, 315, 324, 404, 421.
"After-pains," 27.
Ailments of infants, serious and slight, 92, 139.
Air and exercise for youth, 294, 310, 367.
Airing a nursery, 167.
Airing infant's clothes, 22.
Allen and Hanbury's foods for infants, 42, 51; feeding-bottle, 52.
Amusements for a child, 195; for a boy, 372; for a girl, 374.
Anti-Cigarette League, 402.
Antitoxin injections in diphtheria, 236.
Ankles, weak, how to strengthen, 140.
Aperients for a new-born babe, 93; for an infant, 81, 106; for a child, 289; caution as to use of, 292.
Appetite, loss of, 160.
Apron, washing, 11.
Archery for girls, 374.
Arm hanging helpless soon after birth, 104.
Artificial foods for infants, 29, 43–46; foods recommended, 43; treatment of convulsions caused by feeding with artificial food, 101.
Artificial light in nursery, 169.
Asses' milk, 33.
Atropa belladonna a poisonous plant, 348.

Back, injury to, 339.
Bacon a valuable food, 157.
Balls, evil effects of, 375.
Barley-water, how to prepare, 38.
Basins, nursery, 6, 354.
Bathing, cold, 357. *See* Ablution.
Bath-room a necessity, 359.
Baths, cold, tepid, and warm, 8, 333, 356, 360.
Beckenham, outbreak of scarlet fever from milk contamination, 254.
Bedroom. *See* Nursery, *also* Sleep.
Beds, feather, 204.
Beef, salted or boiled, for children, 157.
Beef juice, how to prepare, 139.
Beef soup, how to prepare, 139.
Beer injurious to children, 159; when permissible for a boy, 366.
Belladonna, treatment of poisoning by, 349.
Benger's food for infants, constituents of, 51.
Beverages in childhood and youth, 159.
Bibs, dribbling, 76.
Bicycle exercise for girls, 371.
Binder, best kind, and when to discontinue, 19.
Biscuits for children, 161.
Bites from dogs and cats, how to act, 346.
Biting substances for use in teething, 74.
Bladder of an infant, 90.
Bleeding from navel-string, 13; from bowel, 109; from leech-bites, 140; from cuts, 337; from nose, 403.
Blood-poisoning in scarlet fever, 244.
Blood-spitting, 394, 399.
Blows and bruises, 338, 348.
"Blue-stone" lotion for nettle-rash, 125.
Boarding school for girls, 378.
Body, part to be kept warm, 145.
Boils and their treatment, 279.
Boots and shoes, 147, 362, 414.
Boracic acid fomentations, 279, 285, 348.
Boracid acid ointment, 12, 13, 69, 343, 348; powder, 12, 95, 284.
Bottle for nursing, 52.
Boulogne sore-throat. *See* Diphtheria.
Bow-legs, causes and treatment, 314, 322.
Bowels of infant, 90; mechanical aids for inducing regular action of, 108; bleeding from, 109; relaxed o, weak, 113; tubercular disease ofr 124, 288; large, of children, 287;

catarrh of, 288; protrusion of lower bowel, 291.
Boyhood and girlhood, 353.
Bran bread, 290.
Brandy to infant's head, 6; in diphtheria, 237.
Bread, baker's and home-made, 162; bran, 290.
Breakfast for infants, 150.
"Breakings-out," 9, 81, 259, 286, 324–329.
Breast, putting the child to, 26.
Breast-feeding. *See* Suckling.
Breast-milk in new-born infant, 94.
Breathing exercise, 373.
Bright's disease of kidneys, 229, 248.
Bronchitis, symptoms, 221; diagnosis from inflammation of lungs, 221; nursing, 222, 225; precautions to prevent return, 309.
Broths for infants, 138; for youths, 366.
Bruises, treatment, 337.
Bugs, how to destroy, 308.
Burns and scalds, 342; remedies for, 343.

Cakes for children, 161.
Calamine powder, 10.
Calf-lymph, 66.
Calomel, warning against indiscriminate use of, 107, 120.
Camphor a remedy for flea-bite, 308; effect on teeth, 387.
Camphor liniment, compound, a hair-restorer, 361.
Camphorated oil to anoint a scarlet-fever patient, 249.
Cane sugar in infant's food, 64.
Caps for infant's unnecessary, 18, 22.
Caraway seeds, 162.
Carbolic acid as disinfectant, 175, 234, 299.
Carbolic lotion, treatment in case of swallowing, 340.
Carnrick's infant food, composition of, 51.
Carpets, an abomination in nurseries, 172.
Carron oil for burns, 343.
Carriage exercise, 372.
Castile soap to clean the teeth, 386.
Castor oil, dosing with, injurious to an infant, 108; used as a liniment, 292; as a dressing for the hair, 360.
"Cast in the eye" treatment for, 385.
Catarrh of stomach and bowels, 288.
Cats, mad, treatment of bites of, 347.
Cauterization for bites of mad animals, 346.
Ceilings and walls of nursery, 171.
Cereals to mix with cow's milk, 48.
Chafing of infants, causes and treatment of, 95.
Chairs, straight-backed, for girls, 379.
Change of air, 295.
Chapped hands, legs, etc., treatment, 316.
Chicken-pox, symptoms, 258; treatment, 258; incubation period, 259.
Chilblains, how to prevent, 316; cure of, 316.
Child-crowing, 99, 138, 322; symptoms, 218; treatment, 102, 219.
Chimneys, stopping up, 165, 176, 299.
Chiropodists, opening for, 412, note.
Chloral, 73.
Chlorate of potash for inflammation of the mouth, 133.
Chlorosis, or green-sickness, causes, 414: symptoms, 415; prevention of, 416; treatment, 418.
Choking, treatment in case of, 345.
Cholera infantum, symptoms and treatment, 116.
Chorea, paralytic, 275.
Circumcision, when necessary, 330 (*see* 16).
Cleanliness and health, 9, 10, 12.
Clothes, airing, 22; taking fire, 341; how to render fire-proof, 342.
Clothing of infants, 18–22; during winter, 23; of children, 144; of youths, 361; of females, 363.
Clubs for boys, use of, 372.
Cocoa nibs, 365.
Cocoa-butter suppository, 108.
Cocoa-nut oil a good hair-restorer, 362.
Cod-liver oil for delicate children, 41, 295, 309, 311, 313, 323.
Coffee for breakfast, 364; how to make, 364.
Coin, what to be done in case of swallowing, 351.
Cold feet, how to warm, 181.
Cold pack, how to make, 301.
Cold water for infants, 5, 8; for children, 144; bathing, 357.
"Colds" in the head or chest, 89.
Colic, causes, symptoms, and remedies, 110.
Colostrum milk, 56; effects of, 114.
Composing medicines for infants, 89, 207.
Compress to bowels, 292.
Condensed milk, 41.
Condy's fluid, 234.
Constipation of infants, 105; remedies, 105; of girls, 290, 405, 407.
"Consumption of the spine," 313.
Consumption, symptoms, 395; predisposing causes, 398.
"Consumptive bowels," 124, 287.
Convulsions, causes and symptoms, 96; from teething, 73; from hooping cough, 102.
Corns, remedies for, 410, 412.
Corporal punishment in schools, 376.
Corrosive sublimate solution as disinfectant, 234, 300.
Costiveness. *See* Constipation.
Cotton-wool jackets, 337.
Courses, influence on nursing, 25.
"Cow for infants," 31.
Cow's milk as a food, 30, 150; com-

position of, 30; peptonized, 41; to prevent it turning sour, 156.
Cow-pox, 66.
Cream, proportions required in diluted cow's milk, 34.
Cream mixture sterilized, 29–43–53, 111.
Cream milk, sterilized, 36.
Cream mixture, 35.
Croup, 211; remedy for, 212; symptoms and treatment, 212; danger in cases of diphtheria, 231; in scarlet fever, 244.
Croquet for girls, 374.
Cry of an infant, significance of, 134; its absence a bad sign, 135.
Currants in bread or cakes, 162.
Curvative of spine, 311.
Cut finger, how to treat, 337.
Cycling and heart-disease, 371.
Cycling for girls, 367, 370–375.

Dancing for girls, 375.
Deadly nightshade a poisonous plant, 348.
Deaf-mutes, 191.
Deafness, causes of, 284.
Defective speech, causes and treatment, 190.
Delicate children, 295.
Dentition, first, 70; second, 209; in old age, 70.
Diapers. *See* Napkins.
Diarrhea of infants, symptoms, 113; treatment, 115; dysenteric, 116; inflammatory, 116; chronic, 122; a dangerous symptom in scarlet fever, 243.
Diet of infants, 23, 106; of children, 150; of youth, 364; of mother or wet-nurse during suckling, 58; of infant after weaning, 62.
Dietary tables for children, 150.
Dill water for flatulence, 111.
Dinner for children, 150, 156, 159, 163; for youths, 366.
Diphtheria, symptoms, 230; complications, 232; contagiousness of, 232; causes, 233; treatment, 233; stimulants in, 236; incubation period, of, 236; disinfection of house, etc., after, 237.
Diphtheritic paralysis, 229.
Diseases of infants, 92; of children, 210; of girls, 414; prevention of, 388.
Disinfectants in diphtheria, 234; in sick-rooms, 300.
Dogs, mad, treatment of bites, 346.
Drainage, importance of efficient, 164, 177, 233.
Dress, female, 363. *See also* Clothing.
Dribbling-bibs, 76.
Dried milk foods, 42.
Drinks. *See* Beverages.
Dropping of infants by nurses, 339.
Dropsy, scarlatinal, 250.
Drugs, reckless administration, 107–112.
Dublin Lying-in Hospital, statistics, 4.
Dusting powder for infants, 9.
Dysenteric diarrhea, symptoms and treatment, 116.

Ear, necessity for careful drying after ablution, 8; discharges from, 78, 283; inflammation of, in influenza, 226; in scarlet fever, 244; danger of boxing the, 284, 377; removal of a pea or bead, etc., from, 350.
Ear-ache, symptoms, 281; remedy for, 282; in infants, how to distinguish from bowel-ache, 281.
Early rising, 384.
Earwig in ear, treatment, 350.
Eczema, infantile, 78, 325.
Education of children, 200; age to begin, 201; of youth, 376; of girls at home, 378.
Eggs as food, 158.
Employment of children, 182.
Enemas for infants, 106, 291, 303; for youth, 406.
Enemata, nutrient, 235, 303.
Epileptic fits caused by smoking, 402.
Eruptions of the skin after vaccination, 68; about the mouth, 325.
Evelina Hospital for sick children, treatment of navel rupture at, 15.
Excoriations, their cause, 6, 10; and remedy, 10.
Exercise, necessity for, 79–83, 187, 359–364.
Eyes, treatment after birth, 18; ulcers on the "sight," 286; quicklime in, 343; other foreign substances in, 344.
Eyelid, stye on, 285.

Face, paralysis of, in infants, 104; acne of, 408; pimples on, 408.
Fainting, how to act, 404; causes, 405.
Fairchild's zymine powder, 40; essence of pepsine, 45.
Falling of children, 338, 348.
Farinaceous foods not suitable for infants, 50–54.
Fat children, 46.
Feather beds, 204.
Feeding in recumbent position, 304.
Feeding bottles, 52; how to cleanse, 52; Allen and Hanbury's, 52.
Feet, smelling, sweating, tender, 413; warming the, 182.
Female dress, remarks on, 363.
"Fidgety" children, 278.
Fire, how to extinguish clothes on, 341.
Fire-guards in nurseries, 169, 341.
Fires in bedrooms, 206; in sick-rooms, 298.

First food for infants, Allen and Hanbury's, 42–51.
Fits of infants, causes and symptoms, 96.
Flannel for washing infants, 6; caps for infants unnecessary, 18, 21; night-gowns, 146; shirts, 146–361.
Flatulence, causes, symptoms and remedies, 109.
Fleas, remedies for, 308.
Floor of nursery, 173; washing, 174.
Flour, baked, 48.
Flowers in bedrooms, 384.
Fluid magnesia a good aperient, 290.
Food, artificial, for infants, 29, 43; how often to be given, 46; composition, 50.
Food of children, 152; between meals, 367.
Football for females, 370.
Formic aldehyde vapor for disinfection, 237.
Fruit for children during teething, 76; cooked, 152.
Fungi, poisonous, 340.
Furniture of nursery, 174.

Gaertner's Mother Milk, 29, 35, 43, 53, 63.
Garters, bad effects of, 148, 362.
Gas injurious in nursery, 170.
German measles, 246; symptoms, 256; incubation period and treatment, 256.
Germs in milk, how to destroy, 36; of diphtheria, 233.
Gin added to infant's food, injurious effects of, 63.
Girls, home education, 197, 378; cycling for, 370, 375; boarding schools, 378.
Glands, swelling of, sometimes a result of vaccination, 68.
Glass, swallowing broken, treatment, 350.
"Glass-pox," 258.
"Globus hystericus," 418.
Glycerine and lime juice, 360.
Glycerine soap, 6, 142.
Glycerine suppositories, 291, 405.
Goat's milk, 33.
Golf for girls, 375.
Gouty parents, children of, 92.
Grazes of skin, treatment, 348.
Green-sickness, 414.
Grey-powder, warning as to indiscriminate use of, 107.
"Grit" in the kidney, 92.
Groin rupture, causes and treatment, 15–17.
Groin, ulcers arising from chafing, 95.
"Growing pains," 272.
"Growing-in" of toe-nails, 149.
Gum-boils, cause and treatment, 409.
Gums, lancing, 71; ulceration of, 132.
Gymnastic exercises, 313, 372.

Hair, management of, 360.
Hard corns, treatment of, 410.
Hardening the constitution, 146.
Hartshorn, poisoning by, 339.
Hats for children, 145.
Hawksley's sterilizer, 37, 52.
Head affections, treatment of, 305.
Head nodding, 100–102.
Head retraction, 100–102.
Head, washing the, 143; vermin in, 307.
Headache, causes of, 420.
Healthy mothers, 23.
Heart failure, sudden, in diphtheria, 232.
Heart-disease, 371.
Hectic fever, 397.
Hiccups, cause and treatment, 112.
Hip-joint disease, 330.
Hives, 124.
Home education for girls, 378.
Honey as an aperient for a child, 289.
Hooping-cough, convulsions from, 102, 264; history of, 263; symptoms, 264; diseases associated with, and after effects, 266; treatment, 266.
Horlick's malted milk, composition of, 51.
Horse exercise, 369, 374.
Horse-hair mattresses, 174, 204, 363, 379, 382.
Hospital draw-sheet, 300.
Hot fomentations, to make, 325.
Hot pack, how made and administered, 335.
Household work for girls, 379.
Human milk, constituents, 30.
Hydropathic treatment for constipation, 406.
Hydrophobia, treatment, 346.
Hysterica passio, 418.
Hysterics, symptoms, 418, 419; causes, 419; management, 419; treatment, 420.

Ice bag for child's head, 249.
Illness, recovery from, 421.
Imitative powers of infant, 97.
Infancy, concluding remarks, 141.
Infant foods, composition of, 51.
Infant schools, 200.
Infants, ailments of, 92; aperients for, 106; constipation, 105; foods for, 29, 42, 50; mortality of, 3, 4, 53, 79; washing new-born, 7, 9; when to be put to the breast, 26; disinclination or inability to suckle, 27; how often to be fed, 47.
Influenza, what is, 225; symptoms and treatment, 225.
Inguinal rupture, 15.
Insect powder, 308.
Intervals of feeding, 48.
Intolerance of light, 286.
Intubation, 215, 236.
Intususception, 109.
"Invalid's cow," 32.
"Inward convulsions," 96, 100.

Iodoform ointment, 14.
Ipecacuanha wine, for sickness of infants, 81; in croup, 214, 216; in bronchitis, 224.
Irritability of child, 184.
Itch, the, symptoms and treatment, 329.
Izal, 234, 300.

JAEGER CLOTHING, 361.
Jalap a griping medicine for a baby, 107, 290.
Joints, swelling of, in scarlet fever, 244.

KIDNEYS, grit or stone from, 92; affected in scarlet fever, 244, 248, 253; inflammation of, 250.
Kindergartens, 200.
Knee, pain in, and limping, 330.
Knock-knee, causes and treatment, 314, 322.

LACTOMETERS, 155.
Lancing the gums of an infant, 71, 79–80.
Laudanum, treatment of poisoning by, 348.
Lead lotion, treatment of poisoning from swallowing, 340.
Leech-bites, bleeding from, 140.
Lice in head after illness, 307.
Light in a nursery, importance of, 167; artificial, 169.
Lime juice, 42.
Lime-water, 33.
Limping, 330.
Liniments, care necessary in using, 339.
Linseed-meal poultice, how to make, 336.
Linoleum, objection to, 173.
"Looseness of bowels, 113; causes and treatment, 114.
Lotions, poisonous, 340.
Lucifer matches poisonous, 169, 340.
Luncheon for a wet-nurse, 59; for children, 150–156.
Lungs, inflammation of, symptoms and treatment, 219, 220; precautions to prevent return, 309.

MAD DOGS and cats, treatment of bite of, 346.
Magnesia, dosing with, injurious to infants, 108. *See* Fluid Magnesia.
Management and care of children, advice and counsel, 1.
Mare's milk, 33.
Measles, symptoms, 238; principal danger in, 239; treatment, 240; incubation period, 240; after effects, 242; how to distinguish from scarlet fever, 244. *See* German Measles, 256.
Measles rash, 256.
Meat, when a child should commence taking, 150; raw meat for infants, 139; meat with breakfast for youths, 365.
Medical man, a mother's conduct towards, 331.
Medical officer of health, notification of disease to, 233, 245, 260, 281.
Medicine, way to administer, 296; rousing a child from sleep to give, 296.
Mellin's food, composition of, 51.
Membranous croup, 244.
Mercurial lotion, poisoning from swallowing, 340.
Mercury, preparations of, 107.
Milk, contaminated, 255, 281.
Milk-crust, 325; duration, 326.
"Milk from one cow," 32.
Milk gruel an excellent food, 290.
Milk, how to sterilize, 36; how to prevent turning sour, 156.
Milk, human, constituents of, 30.
Milk in breast, where none at first, 26.
Milk in infant's bosom, 94.
Mind, influence on the body of mother and on nursling, 24, 60.
Miscarriage, risk of, 25.
Molasses, 290.
Mortality of infants, 3, 54, 79.
Mother's duty to her children, 2–4.
Mother's mark, 136.
Mother's milk, no real substitute for, 29, 53–55.
Mother milk food, 42.
Motions of young infant, characteristics of, 113.
Mouth, eruptions about, 324; inflammation, varieties of, and treatment, 131–134.
"Mucous disease," 287.
Mucus in the air passages, 92.
Mumps, symptoms, 270; a contagious disease, 271; incubation period, 271; treatment, 271.

NAPKINS, washing, 10; when to dispense with, 92.
Native carbonate of zinc powder, 10.
Navel, watery discharge from, 14; soreness of, 14; rupture, 15.
Navel-string, treatment, 12; separation of, 13.
Neave's food for infants, composition of, 51.
Nervous system of infant, 96, 100, 208.
Nervous temperament incompatible with good nursing, 25.
Nestlé's Anglo-Swiss food, composition of, 51.
Nettle-rash, causes, symptoms, and treatment, 124.
Night-gowns, flannel, 146.
Night-terrors, 180; treatment, 181.
Nose, bleeding from, 403; removal of foreign substances from, 350; stuffing of the, 127.
Notification of disease to medical officer of health, 233, 240, 245, 260.
Nourishment, administration in sick-

ness, 302; refusal of, forced feeding, 303.
Nurse, choice of a, 178; in the sick-room, 304.
Nursery, the, selection and ventilation, 85, 164; light, 167; airing, 168; warming, 168; temperature, 83, 169; artificial light, 169; ceilings and walls, 171; space necessary for each child, 171; covering for floor, 173; furniture, 174, washing floor, 174.
Nursery, the night, 175; place for bed, 176; evils of stopping chimney, 177; darkening for sleep, 206; fire in winter 206.
Nursing, prolonged, when injurious, 25.
Nursing bottles, 52.
Nursing sick children, 298.
Nutrient enemata, 235–303.
Nystagmus, or oscillation of the eyeballs, 100.

Oatmeal, a wholesome food, 153; Scotch, 48, 153, 293.
Oatmeal-water, to prepare, 39.
Ophthalmia, a frequent cause of, 7, note; dangers of, 285.
Opium, poisoning from swallowing, treatment, 348.
Over-feeding, dangers of, 55.
"Over-laying," how to avoid, 86–90.
Ozide of zinc and starch powder, 10, 95–130.

Painted toys, danger of, 198.
Paralysis in infants, 103; treatment, 104; in diphtheria, 232; after measles, 242.
Paralytic chorea, 275.
Paregoric a dangerous medicine, 81, 223, 268; poisoning from swallowing, 348.
Parquet floors, 173.
Pasteurization, 38, 347.
Patent foods for infants, composition of, 51.
Paterfamilias, advice to, 202.
Peevish children, 184.
Peppermint in infant's food, 63.
Pepsine, Fairchild's essence, 45.
Peptonized milk, 39; how to prepare, 40.
Perspiration, danger of checking, 143.
Pigeon-breasted and narrow-chested children, 310.
Pillows, arrangement of, 138.
Pimples on face, remedy for, 409.
Pins, 20; swallowing, what should be done, 351.
Pitting in small-pox, how to prevent, 261.
Plants and flowers in bedrooms, 384.
Playgrounds for children, 199.
Playthings in nursery, 178, 198.
Pleurisy, symptoms, causes and treatment, 227.
Pocket-money for boys, 367.
Poisoning, accidental, 339–348; by laudanum, 348; by opium, 348; by belladonna, 348.
Pomatum bad for the hair, 360.
Pork an unwholesome food, 157.
Port-wine mark, 136.
Potatoes should be mashed, 158–160.
Poultices, how made, 336.
Powders for infant's body, 9, 95, 130.
Precocity, dangers of, 388.
Pregnancy of mother whilst nursing, 25.
Prescriptions, a few simple, 423.
Prevention of accidents, 352.
Profession or trade, choice of, 380.
Protrusion of lower bowel, causes and remedies, 291.
Prunes, stewed, 406.
Pseudo-paralysis in infants, 105.
Puddings for children, 151, 160.
Pulse in health and disease, 308.

Quack Medicines, mischievousness of, 112, 268.
Quarantine, period of, in diphtheria, 236; in measles, 242; in scarlet fever, 250; in German measles, 255; in chicken-pox, 259; in hooping cough, 268; in mumps, 271; in typhoid fever, 281.
Quicklime in eye, treatment, 343.
Quinsy, symptoms, 228; causes, 228, treatment, 229.

Rain-water, for washing infants, 5; for ablution generally, 354.
Reading aloud, 376.
Recovery from severe illness, 421.
Red-gum, 67, 123; symptoms and treatment, 125.
Refusal of nourishment, forced feeding, 302.
Relaxed or weak bowels, 113.
Rennet, 45, 154, note.
Retraction of the head, 100.
Re-vaccination, importance of, 65.
Rheumatic fever, 272; extra clothing required after, 362.
Rheumatic nodules, 278.
Rice-water, how to prepare, 39.
Rickety children, 46, 97, 192, 217, 225, 310, 314; causes and treatment, 321.
Ridge's food, composition of, 51.
Ringworm, cause, symptoms, and treatment, 327.
Rocking infants to sleep, 86.
Round shoulders, 313, 394.
Round-worms, 318.
Rowing for girls, 374.
Rubeola (German measles), 255.
Running scall, 325; duration, 326.
Rupture, groin, 15; navel, 14, 15.

St. Vitus's Dance, 272, causes of, 273; symptoms, 274; treatment, 276.
Salt, use of in the bath, 9, 309.
Salt beef for a child, 157.

Sal volatile a remedy for flatulence, 111 ; for stings, 347.
Sanitary rose powder, 9, 131.
Sanitas, 175.
Savory and Moore's peptonized condensed cow's milk, 41 ; food for infant's composition, 51.
Scabby eruption about the mouth, 324.
Scalds and burns, 342.
Scarlatina a mild form of scarlet fever, 242 ; ventilation a remedy for, 247, note.
Scarlatinal dropsy, 250.
Scarlatinal rash, 229, 256.
Scarlet fever, 242 ; diarrhea a dangerous symptom, 243, 246 ; hybrid, 240 ; importance of distinguishing from measles, 245 ; treatment, 246 ; exceptional cases, 251 ; incubation period, 254, purification of house, etc., after, 254 ; precautions against spread of, 254.
Schools, female boarding, 378.
Scrofula, symptoms ; 389 ; predisposition to, 391 ; prevention of, 391 ; how to mitigate effects, 392 ; treatment, 393.
Scurfy head, treatment, 143, 328.
Scurvy, symptoms in children, 421.
Scurvy rickets, 324.
Sea and fresh water bathing, 357 ; for a young child, 296 ; when advisable, 358.
Senna, syrup of, 289, 292 ; compound confection of, 289.
Serious and slight ailments, their distinction, 94.
Shampooing the stomach, 108.
Sheep's milk, 33.
Shell-fish, poisonous, 340.
Shingles, 326 ; treatment, 326.
Shirts for infants, flannel, 146, 361.
Shivering fit, an important symptom, 269, 331 ; treatment, 270.
Shoes, boots, and stockings, importance of attention to, 147, 148, 362, 413.
Shortening infant's clothes, 23.
Sick children, nursing, 297.
Sick-room, management of, 297.
Sickness of infants, 127.
Singing and reading aloud, 202, 376.
Sitz-bath, for protrusion of the lower bowel, 293.
Skating for girls, 375.
Skim-milk injurious for children, 153.
Skipping for girls, 374.
Sleep of infants, 85 ; lying alone, 85 ; rocking, 86 ; covering crib or face, 87 ; much, necessary, 88.
Sleep of children, 204 ; in midday, 204 ; right time for, and how to place to, 205 ; lying alone, 207 ; talking in sleep, 208.
Sleep of youth, 382.
Sleep-walking, 208.
Sleeplessness, 207.
Slop-pails should not be used, 299.
Smallpox, vaccination a protection against, 64 ; case in Lambeth Lying-in Hospital, 66 ; symptoms, 259 ; contagiousness, 260 ; treatment, 260 ; incubation period, 261 ; how to distinguish from chicken-pox, 261.
Smelling feet, remedy for, 413.
Smoking, ill effects in youth, 401.
Snoring, cause and treatment, 136.
Soap, castile, 5 ; glycerine, 6, 142.
Soft corns, treatment of, 411.
Sore teats, cows suffering from, 254.
Sorethroat, 224, how to ward off attacks. 400.
Soups and broths, 366.
Soxhlet's sterilizer, 37, 52.
Space required in nursery for each child, 171.
Spectacles, when necessary, 286.
Speech, defects of, 190.
Spinal caries, 313.
Spinal curvature, 311 ; injury, 339.
Spitting blood, 394 399.
Sponges for washing infants, 6, 142.
Sponging to reduce fever, 301.
Spotted acne, 409.
Sprains, how to treat, 338.
Squinting, treatment for, 285.
Stained floors, advantages of, 173.
Stammering, cause and remedy for, 188.
Starch powder, 9.
Stays, loose, approved, 362.
Steam, superheated, disinfection by, 238.
Sterilizing milk, 33, 36.
Stewed prunes, how to prepare, 291.
Stiff neck, 307.
Stimulants, 60, 366.
Sting of bee or wasp, remedies for, 347.
Stockings, boots, and shoes, 147, 362, 413.
Stone fruit injurious during teething, 76.
Stone from the kidney, 91 ; in bladder, 315, 330.
Stooping of girls, 313–393.
Stoppage in the bowels, 109 (*see* 116).
Stopping temporary teeth, 83.
"Strawberry tongue" in scarlet fever, 242.
Stunning, treatment in cases of, 338
Stye on eyelid, treatment of, 286.
Sucking of thumb, 75.
Suckle, disinclination or inability of infant to, 27.
Suckling by mother, when imperative, 24 ; when not advisable. 24 ; when mother unable, 30, 53 ; when to be commenced, 26 ; how often necessary, 28.
Suet, value of. 152.
Suffocation of infants, how caused, 90.
Sugar in infant's food, 64.

Sulphur not a preventive medicine, 294.
Sulphur dioxide gas for disinfection, 237.
Sundays, cheerful, for children, 199.
Supper for a child, 151; for a youth, 366.
Suppositories, 108.
Swallowing dangerous substances, 351.
Sweaty feet, remedy for, 413.
Sweetmeats for children, 161.
Swelling in child's neck, 105.
Swimming, remarks on, 355.
Syrup of senna a good aperient, 289, 292.
Syrup of white poppies a dangerous medicine, 81, 224, 268.

Tallow-candle suppository, a nurse's remedy for costiveness, 108.
Tape-worms, 318; cause of, 318, note.
Tea, diet at, for infants, 151.
Tea drinking in childhood, 161, 364, 366.
Teeth, first set, their appearance and number, 70, stopping temporary, 83; second set, 209.
Teeth and gums in illness, 303; means of keeping them healthy, 82, 386.
Teething, 70; convulsions caused by, 73; attention to diet necessary, 77; diseases accompanying, 77; statistics of death from, 79 note, 79; symptoms and treatment of painful, 79; purgings, 80; eruptions, 81.
Teething powders, injurious, 82.
Temperature of the nursery, 169; of various baths, 360.
Tender feet, remedy for, 413.
Tennis for girls, 374.
Tepid bath, when to be used, 359.
Tetany, 99, 102.
Thermometers, bath, 8.
Thread-worms, 319.
Throat, in scarlet fever, 247.
Thrush, 123; causes, symptoms, and treatment, 129.
Thumb, sucking of, 75.
Tight-lacing, evil effects of, 362 note.
Toast and water for a child, 159.
Toe-nails, how to cut, 149; "growing in" of, 149.
Tongue-tie, 27, 136.
Tongue, ulceration of "bridle" of, 133.
Tonsils, enlarged, 136, 315; a cause of deafness, 284.
Tooth-brush, importance of frequent use of, 132; how to use, 386.
Tooth-cough, 81.
Tooth-powder, an excellent, 386.
Tooth-rash, 125.
Tossing infants, 85, 195.
Toys for children, choice of, 198.
Tracheotomy, 215, 236, 266, 352.
Trade or profession, choice of, 381.
Treacle. *See* Molasses.
Tricycle exercise for girls, 370.
Trusses for infants, 16, 17; precautions in use of, 17.
Tubercle bacilli, 83, 233, 253, 288, 389, 390.
Tubercular diseases following hooping cough, 266.
Tubercular meningitis, first symptoms of, 103.
Tubercular peritonitis, 288.
Tub-washing, 7, 142.
Typhoid fever, 280; precautions in nursing, 281, 301.

Ulceration of gums, 132.
Ulcers on the "sight" of the eye, 286.
Underclothing for infants, 21.
Underdone meat, dangers of, 318, note.
Unhealthy mothers, 24.
Urinals, glass, 300.
Urine, characteristics of healthy, 91; quantity passed by infant, 91; frequent passage of, 91; temporary stoppage, 92, 306, 333; examination in diphtheria, 232, 234; in scarlet fever, 250; importance of saving for inspection by doctor, 92, 232, 234, 250, 300.

Vaccination, 64; age for, 66; breakings-out a reason for deferring, 67; effect on child, 67; medicine after, 68; treatment of arm after, 68; scab, 69.
Vaccination from the calf, 66.
Vaseline, 7, 320.
Veal for children, 157.
Vegetables for children, 151, 158.
Ventilation of nursery, 165; of sick-rooms, 234, 298; of bedrooms, 382.
Vermin in head, treatment, 307.
Violet powder, 10.
Vomiting food, cause of, 55.

Walking, child's early attempts at, 195; importance of walking exercise, 368.
Walls of a nursery, hints for, 171.
Warm baths, 333; precautions in using, 333, 359; action of, 359.
Warm external applications, 334; precautions necessary in applying, 336.
Warm water for infants, 5; for children, 143.
Warming a nursery, 167.
Warts, how to destroy, 413.
Washing. *See* Ablution, *also* Bathing.
Washing infants and children, 5, 142, 301.
Water-closets, properly constructed, 164, 300.
Water, filtered, 159.
Waterproof bed-sheeting, 315.
Wax in the ears, an occasional cause of deafness, 285.

Weak ankles, cause of, 140, 322.
Weaning, 25, 61; diet of child after, 62.
Weight of new-born infants, 43, 89, note.
Weir-Mitchell treatment for a delicate child, 296.
Welfare of children, hints for, 182.
Welsh flannel, 361.
Wet-nurse, how to choose, 55–57; diet of, 58; hints on management, 61.
Wetting the bed, how to prevent, 314.
Wheaten flour, 49.
Wheezing of infants, 92.
Whipping a child, 179.
White-gum, 125.
Wind in stomach, 63, 110, 280; best remedy for, 112.
Wind instruments injurious to health, 374.
Windpipe, foreign body in, 351.
Wine injurious to children, 160; to a youth, 366.
Winter clothing, 147; leaving off, 149.
Winter, exercise in, 194.
Woolen shirts, 361.
"Worm fever," 318.
Worms infesting a child's bowels, 317; treatment, 320.

YOUTH, air and exercise for, 367.

ZYMINE POWDER, Fairchilds, 40.

THE END.

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